

CONSUMERS' RESEARCH

Bulletin



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BULLETIN

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March 1944

Off the Editor's Chest

IN the latter days of 1943, there were those who professed to see signs of a buyers' strike developing. There was, for example, a depressing number of unsold and wasted Christmas trees in spite of the fact that government officials had predicted there would be a serious shortage. Department stores reported that consumers were refusing to buy high-priced wartime substitute or "ersatz" goods. On the other hand, oddly enough at the same time, women in large numbers were refraining from giving up ration coupons for low-priced shoes, possibly because they assumed low-price necessarily meant very poor quality.

Back in 1920, consumers put on a price protest that is still said to give merchandise men the cold shivers when they remember it. Men and women paraded in overalls and calico dresses carrying placards suggesting specific ways of bringing down the High Cost of Living. For a time it was considered fashionable to wear old clothes as a means of showing resentment at high prices for goods of inferior quality. Repetition of such spectacular methods of demonstrating consumer displeasure appears to be unlikely at the present time, even though plenty of people are having a hard time making ends meet for essentials such as food, fuel, clothing, and rent. They are more resourceful than formerly, perhaps; in any event they are turning to more practical methods of supplying their needs.

Probably more than any other nation in the world we in this country have been a buying people, who appreciate goods and pursue new articles and new values, as the hunter seeks out his ducks, pheasants,

or rabbits. For many women, an afternoon of shopping, or just window shopping, was a weekly performance. Now that stores no longer can put forth such a tempting array of "bargains," there are signs of a change in national habits. In spite of the numerous mink coats seen on city streets and tales of the large sums of money being spent for women's clothing by high-paid defense plant workers, there has been an impressive rise in home sewing and considerable interest in home repairing and remodeling. Add to the shopping problem the problems created by crowded, uncertain, or infrequent transportation, and the shortage of clerks so that it is difficult to get waited on even when a decision to purchase has been made, and you have an adequate explanation for the lack of crowds in the department stores and specialty shops.

Women have more to do at home these days. Homemaking, it now appears, is a full-time job. Commercial laundry facilities are quite unsatisfactory in many cases. Cooking requires more attention to provide variety in the face of severe shortages of accustomed foods and foods easily and quickly prepared. Curtains are difficult to replace and must be washed and mended carefully to make them last. Shoes need to be cleaned and shined to keep them looking presentable, for many are discovering that pre-war shoes properly cared for give much better service and appearance than those now coming to the dealers' shelves. In short, thrift is becoming a virtue once more and whether it becomes a continuing national habit depends partly on how

(Continued on page 26)

Scientific and Technical Experts and Editors: F. J. Schlink, R. Joyce, M. C. Phillips, A. R. Greenleaf, and Charles L. Bernier. **Editorial Assistant:** Mary F. Roberts.

Symbols used to indicate sources of data and bases of ratings: A—recommended on basis of quality; AA—regarded as worthy of highest recommendation; B—intermediate with respect to quality; C—not recommended on basis of quality; cr—information from Consumers' Research's own tests or investigations; 1, 2, 3—relative prices, 1 being low, 3 high. Note that price and quality are completely differentiated in CR's listings; a **quality judgment is independent of price**; 43, 44—year in which test was made or information obtained or organized by the staff of Consumers' Research.

It will be advantageous if you will, whenever possible, send prompt notice of change of address at least a month before it is to take effect, accompanying your notice with statement of your old address with name in full. At least three weeks' notice must be given in any case. This rule, however, regarding long advance notice does not apply to military personnel. *Changes of address for men and women in the services will gladly be handled whenever required.*

★ ★ ★ For a brief cumulative index of 1944 BULLETINS preceding this issue, see page 26.

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CORRECTIONS TO CONSUMERS' RESEARCH BULLETIN OF

MARCH 1944

Dried Soups
p.9, Col. 3

The price of Betty Crocker Vegetable Noodle Soup
Ingredients should have been given as 10c per
package, not 3 packages for 10c. The price per
portion should be corrected to 1.6c.

The Ubiquitous
Vitamin Prepara-
tions - II
p. 12

Benefax (Anacin Co.) should be removed from the A
group to the C group on page 14. This multiple
vitamin preparation has been reformulated and now
contains only 15 mg. of vitamin C, instead of the
37.5 mg. found in the earlier preparation. Vitamin
C content of the new product falls far short of the
daily requirement of this vitamin (30 mg. for adults).

Engineering Library

Engineering
Dept. The
7-12-45
Shortage
v. 13, no. 3



Consumers' Observation Post

VITAMIN-ENRICHED BREAD is not a substitute for meat. As a supplier of protein, bread is relatively poor, Dr. L. Emmett Holt, Jr., of Johns Hopkins Hospital, pointed out not long ago in a medical journal. Dr. Holt made the criticism that the advertising for such bread leads the public to conclude, quite incorrectly, that enriched bread has "superb protein values" and may be substituted for beef. It would appear that such advertising claims have the blessing of the Food and Drug Administration and the Federal Trade Commission. Dr. Holt suggested that while there

may be room for debate on the question of whether there is more danger of a deficiency of vitamin B or of protein in our diet, his own observations led him to conclude that protein deficiencies are the more common.

DANGER OF CARBON MONOXIDE POISONING is increasing because of the age and condition of the nation's automobiles. The American Automobile Association has warned that special precautions should be taken in starting a car these days to make certain that the garage doors are open and that while the car remains in the garage the motor is allowed to run as little as possible. The exhaust system and the tightness of the "seal" between the body of the car and the engine compartment should be checked at regular intervals. Car windows should never be completely closed, even in the coldest weather! Carbon monoxide gas is colorless, tasteless, and odorless, and for these reasons it often causes prostration without the victim's ever being aware of his danger.

INNER SOLES such as those of the cork type, for example, available in the five-and-dime stores are often useful when a woman's shoes are wearing thin on the bottom and there is not time to take them to the shoemaker at once. Various types are available at ten and twenty cents the pair that will tide a woman over an emergency and prevent her wearing holes in her stockings when a worn spot in the sole allows a point of contact with the pavement.

SUGAR RATIONING has brought about a reduction in the large amount of white sugar used by the American people and has turned their attention to some extent to substitutes such as syrups and molasses. In an interesting study on the subject by Olive Sheets of Mississippi State College it was discovered that blackstrap molasses (the residual product left after separating out the sugar in the process of sugar refining) was more effective than sorghum syrup or sugar-cane syrup in curing anemia in test animals that were made anemic by being fed exclusively on a milk diet. On the average it required three times as much sorghum syrup and seven times as much sugar-cane syrup to supply the same amount of iron as that in blackstrap molasses. When this molasses is again available it would seem advisable for consumers to make greater use of it in cooking and at table, particularly for women and young children, in whom nutritional anemia is common.

BOYS' PAJAMAS, SWEATERS, AND HOSE are among the items that will be the hardest to buy this spring. This is due partly to the scarcity of cotton fabrics for civilian use. Woolen goods are likely to be more plentiful but this does not help the situation greatly since most of the needed boys' furnishings are manufactured from cotton and rayon. Swap shops which exchange garments outgrown but still wearable may be one solution in the face of dwindling sup-

ply. Perhaps someone will organize a Bundles for the Growing Boys of the United States to help hard-pressed mothers.

* * *

KIDNEYS, HEARTS, TRIPE, AND OTHER VARIETY MEATS are high in food value and low in ration points, as well as price. Unfortunately, most consumers in this country do not know how good they can be when properly prepared. The result has been that these valuable foods remain in the freezers of the butcher shops or the cold-storage rooms of the wholesaler for a considerable length of time before they are sold. Recently the War Food Administration, hard put to it to find adequate cold-storage space for its vast accumulated stocks of essential foods, ruled that such meats could be held in storage only for ten days. What was to be done with it after that time was apparently no concern of the WFA, and 200,000 pounds of a variety meat were dumped into the tankage vats by one packer in Philadelphia alone in January as the result of this order, to be made into fertilizer. Most consumers, no doubt, would much prefer to see the squeeze on cold storage facilities eased by the release of some of the 231 million pounds of butter that the WFA has stored up.

* * *

BOYS' SHOES made with soft belly leather soles are a waste of materials, time, effort, and money, according to the outspoken editor of the Boot and Shoe Recorder. To which many a parent will sigh "Amen." The life of such soles is about two weeks, estimates the journal, which recommends instead of inferior leather the use of heavier and better-wearing composition soles, even if the latter do mark up the linoleum and hardwood floors. Let the parents be frankly told the situation and allowed to make their own choice.

* * *

ROACHES are a great nuisance to many people living in cities, particularly those who live in old houses. One very simple method for their eradication has been contrived by C.S. Barnhart, published in a recent issue of The Scientific Monthly. The roach, it appears, must have water. If ordinary test tubes are filled with a weak solution of boric acid in water, plugged with wads of absorbent cotton and then distributed around the kitchen, the roaches will drink the boric acid, mistaking it for water, and will then come to a speedy end. Very small bottles will undoubtedly serve the purpose just as well as test tubes.

* * *

CLOTHING should not be stored in a hot attic for heat causes deterioration of fabrics, according to tests made by the U.S. Department of Agriculture. It is much better for the life of the garments if they are put away in a dry dark storage closet on the ground floor where it is cooler. Darkness is important since light hastens chemical deterioration in fabrics.

* * *

A TINY NEW FLUORESCENT LAMP with a bulb no larger than a marble is being produced now by Westinghouse for Army use. It gives off more light than a 1/4 watt neon glow lamp with a current consumption of something like 1/10 watt or about 2 cents worth a year. Such low-power glow lamps will undoubtedly have extensive post-war uses for marking dark hallways, keyholes, and as night lights.

* * *

EGGS should be properly stored in the home refrigerator even when only a week's supply is bought at one time, or they will deteriorate rapidly in quality. The Utah Agricultural Experiment Station last year conducted a study of the subject which showed that eggs in a tightly covered "hydrator" kept their quality longest. Next best in keeping quality were those stored in an open container placed on the bottom of the refrigerator. Last in keeping qualities were eggs stored in a closed carton on the bottom of the refrigerator.

* * *

IF YOU HAVE SOME USED ELECTRICAL APPLIANCE or other that you wish to dispose of, take care you don't fall into the trap of a new type of racketeer. This is the way his scheme is worked: The would-be seller is approached by a prospective customer who offers a large sum for the appliance. When this offer is accepted, it turns out that the ceiling price set by the OPA on the item in question has been exceeded and the seller is liable for damages of three times the excess over ceiling price. As the Wall Street Journal works out the figures, you might be offered \$125 for a washing machine second hand, on which the ceiling is something like \$19.50. The racketeering purchaser may then collect

(The continuation of this section is on page 29)

Men's Suits

ONE COULD, in 1940, buy a man's ready-made suit of *A-Recommended* quality at a price as low as \$15 to \$25. In planning the test which we are reporting at this time, we were able to locate in a very large midwestern city only seven brands of nationally distributed suits selling at less than \$50, and the average price of these was \$32.70. This means that the salaried worker or other person on a fixed income who has not received any benefit from the "war prosperity" will need to take particular care in buying so as to be sure that he gets a better-than-average suit at the higher price which he must now pay.

Previous tests by CR in this and many other fields have shown the fallacy in the assumption that price is a reliable indication of quality. The consumer must therefore base his choice in buying a suit on more fundamental properties. First and perhaps most important is the type and quality of the fabric. Men's suitings generally are worsteds or woolens. For long wear, worsteds are usually to be preferred to woolens. This is because the yarns are stronger and more firmly woven, but worsteds have the well known tendency to develop a shiny appearance from wear more quickly than occurs with woolens. There are various types of worsteds and woolens and the following are listed in order of durability, number 1 being rated the most durable, and 6 the least durable.

Woolen Suitings

1. *Tweed*. Rough, coarse fabric made from heavy, wiry

yarns of medium-grade coarse wools. Various weaves are used, usually twill, but sometimes plain or herringbone twill. Poorly-constructed tweeds tend to slip at the seams. Not all tweeds deserve the reputation which the best tweeds have of strength, toughness, and long-wearing qualities.

2. *Cassimere*. A smooth, hard-surfaced, light-weight fabric with no nap, in plain or twill weave.

3. *Homespun*. Although originally made by hand as the name indicates, it is now mostly made by machinery. Its outstanding characteristic is the coarseness of the wool fibers used. Woven as a loose, rough fabric in plain weave, usually with "nubby" appearance due to small bumps or unevennesses in the yarn. It is usually heavier in weight (thicker) and coarser than tweed.

4. *Wool Cheviot*. Resembles serge, but heavier and rougher. Has only slight nap; is woven in twill or variations of a twill weave. Does not wear shiny as quickly as serge.

5. *Flannel*. A soft fabric with heavy nap in twill weave made from loosely-spun and -woven yarns.

6. *Wool Broadcloth*. Smooth finished, fine fabric similar to flannel, except that the nap is silkier; woven in a plain weave.

Worsted Suitings

1. *Hard-Finished Worsted*. A smooth, hard fabric with no nap in which the twill weave is clearly visible. Tends to become shiny quickly. A long-wearing fabric.

2. *Serge*. A smooth, twill-woven fabric with a slight nap.

3. *Worsted Cheviot*. Similar to serge, only heavier and rougher. Woven in twill and variations of twill weave. Has slightly more nap than serge.

4. *Unfinished Worsted*. Made in twill weave and finished with a nap longer than that of any other worsted.

5. *Tropical Worsted*. A light-weight fabric of tightly-twisted yarns woven in a plain weave of character to make it porous and suitable for summer wear. It has no nap.

6. *Bedford Cord*. A strong woolen fabric of fine long staple wool, cords running in the warp direction.

The quality and durability of the fabric depends upon the quality of the wool fiber used and its weave. Virgin wools, of which at this time this country appears to have an ample supply, are of course superior to reprocessed or reused or shoddy wools, which have come in recent years to be extensively used in clothing fabrics. Many consumers are confused by the terms reprocessed and reused, and these terms probably were employed partly to conceal the previous history of the material from the consumer, who has not taken the time to study legislation and the government's releases on the subject. According to the Wool Products Labeling Act, *reprocessed wool* is a wool that has been previously woven (or felted), but has never been used by the ultimate consumer. (Wool cloth made, for example, from waste scraps of cloth obtained when a suit is cut from the bolt of cloth would be reprocessed wool.) *Reused wool* is wool that has been reclaimed from prod-

ucts previously used by the consumer (i.e., old clothing, carpets, blankets). Clothing and men's suits that are distributed in interstate commerce must show on the label the class of wool and other fibers present. When "all new wool" or "all virgin wool" appears on the label, it means that the product is made of one kind of fiber and of "all new wool." When "all wool" or "100% wool" appears, the fabric may contain reworked woolen fiber which has previously been partially processed but never woven, felted, or used. If the information or its equivalent does not appear two things are possible: either (1) that the suit is of an inferior quality and that not being sold in interstate commerce, it does not require the form of labeling specified by the Wool Products Labeling Act; or (2) that the manufacturer is violating the Act. The phrase "Exclusive of Ornamentation" is included if the product does not contain more than 5% of other fibers for ornamentation purposes. A typical form of labeling for a garment not made of all new wool would be as follows: 50% wool, 30% re-processed wool, and 20% reused wool.

The average consumer perhaps tends to give a little too much weight to the fiber used, and assumes that if the fabric used is 100% new wool, there is no further question of importance. Actually the type of weave, as well as the quality of the wool fiber used, plays an important part in the quality of a fabric. Closely-woven fabrics, which are those having a high thread count, are firmer, warmer, and keep their shape better than loosely-woven, low-thread-count fabrics. The threads running

lengthwise of the cloth as it is woven in the loom are the warp threads; those running crosswise, the filling threads. The warp threads are usually stronger than the filling threads, being so of necessity in order to withstand the strain and friction of the weaving process. Fabrics woven in both warp and filling with two-ply yarns are likely to be more durable than those woven with single-ply yarns. Two-ply yarns are made of two threads twisted together.

The majority of men's suitings are either of plain or twill weave. The plain weave is made by carrying the filling threads over and under alternate warp threads. The twill weave, of which there are many variations, produces a firm, durable fabric, distinguished by the diagonal lines across its face. These diagonal lines may be continuous or broken, and on different fabrics will vary in width and the angle at which they cross the cloth.

Fit

The importance of good fit is obvious enough, and many fine fabrics have been tailored into a suit which hangs poorly or is even uncomfortable because of carelessness in cutting or putting together. Ready-made suits are sized by chest measurements and a 38 suit, for example, will have all other measurements, except for the length of the trouser leg, in proportion. Thus a suit made as a 38 will only fit a person having a standard figure, or what the trade considers to be a standard, and others will require such a suit to be altered in some respects. The fit of the coat is most important, and this should be tried on naturally; don't allow salesmen to pull or pat

into place as is commonly done in an effort to make the fit appear better than it is. If the fit is good, the coat will hang smoothly without bulges and wrinkles and will fit snugly without giving any sense of strain or restriction when the arms or body are moved in a natural way. The collar should fit snugly around the neck. An important point to watch is that there should be no wrinkle or bulge in the back just below the collar. The height of the collar should be such as to permit about $\frac{1}{2}$ inch of the shirt collar to show above it. Sleeves should be of a length that will just cover the wrists. The position of the sleeve should be such that when the coat is held by the shoulders, the sleeve will hang in a straight line from the shoulders, with the front of the sleeve passing over the center of the pocket. The length of the trousers should be such that there is a slight "break" over the instep. Trousers that are too long not only look badly, but wear out quickly at the lower edge.

The problem of pressing of garments will be discussed in a future Bulletin. There are, however, a few points which should be mentioned as very important in obtaining the maximum life from a suit of clothes. Avoid carrying any large bunch of keys or other bulky object in the pockets. If it is necessary to do this, shift the items to a different pocket occasionally, for such articles, especially keys, wear out pockets quickly. When a large number of keys or similar articles must be carried, it is best that they should be suspended from the belt with a suitable clip. Pens and pencils with clips do much damage to coat- and vest-pocket edges; if not used with clips they tend

to wear holes in the pocket, or a pen not held upright may cause a bad ink stain. Leaky pens very often cause ink stains which are very difficult or impossible to remove from a woolen fabric without damage to the color. The belt worn should be one that passes through the trouser loops easily. A belt which is too wide will cause rapid wear.

* * * *

In CR's tests, seven well-known brands of suits were purchased by individuals in the customary way. A portion of the fabric of each suit was then cut up and subjected to tests for breaking strength, resistance to abrasion, ply of yarn, thread count, weight of fabric, quantity and quality of wool, and color fastness when exposed for 40 hours in a Fadeometer. The suits were also opened at seams to judge the quality of padding, interlining, etc. The fit of the suits and the quality of workmanship were also judged. In general, it was found that the quality of the suits was a good deal lower than prewar suits at anything like corresponding price levels. Only one suit had fabric with two-ply yarns in both warp and filling, whereas in CR's previous test half the suits tested had this desirable property. Six of the suits used *Kimpak*, a paper product like *Kleenex*, for shoulder padding. Prewar suits used cotton for this purpose. All the fabrics were approximately 100% wool.

In the listings, the word "twill" is used to designate a fabric woven in a manner to produce a diagonal rib effect. This does not necessarily signify that a true twill weave was used. One suit (*Howard*), however, which did have a twill effect was a true twill weave. Dif-

ferences in tailoring and workmanship of the several suits were in the main, inconsiderable. The suits by *Richman*, *Sears*, and *Wards* showed a trifle less hand work than the others and tended to use somewhat cheaper materials. Even the best suit tested, the *Hilton*, used for interlining a hair cloth with very little hair in it. The coat linings of the suits tested were not of outstanding quality, only the *Sears* being worth a special mention for fine weave and apparent quality. The *Hart, Schaffner & Marx* and the *Wards* lining were a trifle coarse. The vest linings of *Bond*, *Richman*, and *Hilton* were good, but the others were somewhat coarse, and the cotton lining of the *Wards* vest was quite inferior in appearance.

Of the seven suits tested, the *Hilton*, *Howard*, *Richman*, and the *Hart, Schaffner & Marx* suits fit so well that they required only minor alterations. On the *Bond* suit, the left shoulder was somewhat too large when the suit was delivered; this was readily corrected. The buttons on the coat of the *Sears* suit were about one-half inch too low, with the result that the bottom of the coat showed an offset. This coat also required taking in at the waist. More difficulty was experienced with the *Wards* mail-order suit. A 39 inch coat was originally ordered, but when received, the coat was too small. The suit was therefore returned and exchanged for one with a larger (40 inch) coat. This was not the fault of *Montgomery Ward*, but rather due to the purchaser's lack of knowledge of the correct method of making the required measurements. The degree of tautness with which the tape measure is held can make an enormous differ-

ence in the fit of a suit and this perhaps is the most serious drawback in the purchase of a suit by mail. Few consumers have the experience necessary to measure a person for a suit correctly.

Ratings are based on the tests already mentioned and upon judgment of workmanship and, secondarily, of fit. The consumer should note, of course, that the ratings given apply only to the particular suits tested.

B. Intermediate

Bond, Lot 47154, Model "Hadley" (Distributed by Bond Clothing Stores, 261 Fifth Ave., New York City) \$36.50. Fabric, worsted twill of good quality. Single-ply yarns in both warp and filling. Weight of fabric, 9 oz. per sq. yd. Thread count 62 x 66. Breaking strength: warp 60 lb., filling 52 lb. (very good and well balanced). Resistance to abrasion, about average. Blue color with fine, lighter blue stripe. Showed no noticeable fading in test. Tailoring and general construction judged good. 2

Hart, Schaffner & Marx, No. 2345 (Hart, Schaffner & Marx, 36 S. Franklin St., Chicago) \$47.50. Fabric, worsted twill of good quality. Two-ply warp and single-ply filling. Weight of fabric, 9.5 oz. per sq. yd. Thread count 64 x 60. Breaking strength: warp 66 lb., filling 47 lb. (good). Resistance to abrasion about average. Fine blue and gray dots on dark blue background. Showed no noticeable fading in test. Tailoring and general construction judged good. 3

Hilton Kenwood, No. 8851-314 (Style-Bilt Clothes Co., N. Y. C. Successors to the Hilton Co.) \$45. Worsted serge of good quality. Two-ply yarns in both warp and filling. Weight of fabric, 12 oz. per sq. yd. Thread count 68 x 60. Breaking strength: warp 64 lb., filling 54 lb. (very good). Resistance to abrasion very good, one of two best in test. Brown color. Showed slight fading. Otherwise the fabric was the best in the group tested. Tailoring and general construction good, but seams somewhat skimpily cut, making it difficult to make alterations. Interlining of only medium quality. 3

Richman, Cloth No. C-3956 (Richman Bros., 1600 E. 55th St., Cleveland) \$29.50. Worsted twill of good quality. Single-ply yarns. Weight of fabric, 9 oz. per sq. yd. Thread count 70 x 60. Breaking strength: warp 60 lb., filling 44 lb. (fairly good). Resistance to abrasion very good; one of two best in test. Brown color with fine, fancy stripe in warp. Showed no noticeable fading in test. Tailoring good. General construction good, except for shoulder padding, which was not covered. **2**

Sears, "Fashion Tailored," Cat. No. 55-8182 (Distributed by Sears, Roebuck & Co.) \$23.75. Fabric, worsted twill of below average quality. Two-ply yarns in warp, single-ply filling. Weight of fabric, 8.5 oz. per sq. yd. Thread count 58 x 58. Breaking strength: warp 59 lb., filling 49 lb. (good). Resistance to abrasion average. Blue color with fine white stripe. Showed no noticeable fading in test. This suit, being

double breasted, had no vest. Tailoring and general construction, except for interlining which was only of medium quality, judged good. **1**

C. Not Recommended

Howard, "Earl," No. 638 (Howard Clothes, Inc., 170 Tillary St., Brooklyn, N. Y.) \$26.75. Fabric, woolen 2 x 2 twill, poor quality. Single-ply yarns. Weight of fabric, 8 oz. per sq. yd. Thread count 42 x 30; second-coarsest-weave fabric. Breaking strength: warp 36 lb., filling 21 lb. (weakest fabric in the group tested, and poorly balanced besides). Resistance to abrasion below average. Gray color. Showed no noticeable fading in test. Tailoring and general construction judged good. **2**

Wards "Donegal Tweed," Cat. No. MB 1434 (Distributed by Montgomery Ward & Co.) \$19.95. Woolen tweed, 1 x 1 weave of poor quality. Single-ply yarns in both warp and filling. Weight of fabric, 10.5

oz. per sq. yd. Thread count 16 x 15; coarsest-weave fabric in the group. Breaking strength: warp 55 lb., filling 28 lb. Second-weakest fabric and badly balanced. Resistance to abrasion poor. Black and white color with irregularly-spaced blue spots. Showed no noticeable fading in test. Tailoring and general construction good, but seams somewhat skimpily cut, making it difficult to make alterations; also lacked interlining. **1**

* * *

London Park (Gladstone Bros., 110 Fifth Ave., N.Y.C.) \$40. Men's and boys' suits of this firm labeled "All Wool" were found to contain a substantial amount of fiber other than wool. Some suits sold by this firm lacked labels giving percentages of wool and other fibers as required by Wool Products Labeling Act; other garments used labeling implying that they were made entirely of vicuna fiber when they were not.

Orange Juicers

"THE widespread use of juicers leads me to ask that at some appropriate time you make a special test of these contrivances and show a multitude of your subscribers where and how to buy a not too expensive juicer. A good juicer costs \$25, but a non-electric, hand operated one should be on the market for a couple of dollars." The above suggestion in a subscriber's letter prompted CR to make a survey of the present market to determine what types of orange juicers remain available to consumers. It was understood that many of the leading brands would either not be on the market or would have been redesigned to use substitute materials, because of the prohibition, under conservation and restriction orders, of the use of metal for "non-essential purposes."

The result of the brief survey was extremely disappointing.

Most manufacturers, it appears, have just had to discontinue manufacturing their products for the duration, and made no attempt to use substitute mate-



rials. Of the non-electrical hand-operated types, the only satisfactory juicer discovered was the *Dazey Super-Juicer*,

Model 100. Some types of juicers using a lever and cup for squeezing the fruit were found, in which wood and porcelain had been substituted for metal. Those of this type examined were judged to be about as unsatisfactory as some of the wartime models of appliances in other fields and were not considered good enough in design to warrant the trouble and expense of testing.

A. Recommended

Dazey Super-Juicer, Model 100 (Dazey Churn & Mfg. Co., Inc., Warne & Carter Aves., St. Louis, 7) \$2.89. Wall-mounted, crank-operated juicer made chiefly of plastic, with a small amount of metal. To pour out juice, the device is lifted out of its wall bracket. Easy to use, and is readily taken apart into 3 units for cleaning. One unit is a coarse plastic strainer to prevent seeds from getting into the juice. Nicely finished, light, works well. Should be dried thoroughly, after cleaning in cool or warm (not hot) water.





Dried Soups

WITH the recent advances in dehydration of food-stuffs which serve the purpose of stability or long keeping qualities, as in the case of milk, and in other instances simplifies transportation and eventual ease of preparation (as in the case of vegetables), a variety of soups in the dried form have lately appeared on the grocers' shelves. The consumer accustomed to the *canned* soups, which were paste-like in appearance and needed only thinning with water, may have at first approached these dubiously. The present question, however, in the consumers' mind is not so much whether to purchase the dried or dehydrated variety, but *which* to purchase.

Dehydrated soups are usually sold in packages containing the soup stock in powdered form; these are encased in airtight cellophane envelopes to prevent caking due to entrance of moisture. The stock is prepared by the manufacturer from a concentrated soup stock, into the making of which goes beef extract or some of the hydrolyzed protein derivatives. It is evaporated by special and often highly technical processes into a powder; dissolving with water again gives a soup stock.

Some brands have dried vegetables mixed with soup stock which serve to give an aromatic odor and taste. There are other brands in which noodles are mixed with the dried soup stock; in some, noodles are packed with the noodles separate. The latter method may

DRIED SOUPS are considered a great convenience by busy housewives. As for their flavor, some like them and others do not. Families accustomed to good homemade soups may not find any of the dehydrated products comparably good eating. One vegetable expert who likes fresh carrots observed that the dried carrot slices in certain soup mixes were quite unpalatable, partly because they seem to require longer cooking than the other ingredients to soften them, and thus vegetable soups in which carrots were a constituent would often be served before the carrots were done.

be preferred by those who like a clear broth and do not particularly fancy noodles. There are no tests that can be reasonably applied that quantitatively measure which soup or soups are superior to others. Provided that no extraneous or foreign matter be present, and that following the directions for use results in an edible or palatable soup, all of the brands examined appear to be about on a parity, and preference in purchasing would depend upon the individual palate.

The brands examined were tested by following directions in making the individual soups. All of the resulting products were made during the course of one afternoon so that judgment applied would be closely comparative. The soups were designated only by numbers in

order to eliminate possible personal bias from previous experience or preferences.

The brands are individually described and listed by price groups.



Chef Boy-Ar-Dee Vegetable Noodle Soup Mix (Chef Boy-Ar-Dee Quality Foods, Inc., Milton, Pa.) Three 2 3/4-oz. packages for 25c. Contained some dried vegetables; had a pleasant aromatic taste and beefy flavor; noodles and stock packed separately; simmer 20 minutes. The addition of 2 tablespoons of butter is recommended. Each package served 6 persons. Price per portion, 1.4c. **1**

Betty Crocker Vegetable Noodle Soup Ingredients (General Mills, Inc., 200 Chamber of Commerce Bldg., Minneapolis) Three 2 3/4-oz. packages for 10c. Contained many dried vegetables; had a pleasant aromatic taste and flavor; noodles and stock packed separately; simmer 20 minutes. The addition of 2 tablespoons of butter is recommended. Served 6. Price per portion, 0.55c. **1**

Wilson's Certified Beef Noodle Soup Mix (Wilson & Co., Chicago) Three 2 3/4-oz. packages for 25c. No vegetables apparent; taste not so well liked; noodles and stock packed together; boil 7 minutes. Served 6. Price per portion, 1.4c. **1**

Wyler's Noodle Soup Mix with Beef Extract (Wyler & Co., 1050 W. Fullerton, Chicago) Three 2 1/2-oz. packages for 25c. Contained some dried vegetables; mild taste and flavor; noodles packed separately; simmer 10 minutes. The addition of a tablespoonful of butter to each package is recommended. Served 6. Price per portion, 1.4c. **1**

Griswold's Cream of Mushroom Soup (R. W. Griswold, Ashtabula, Ohio) 1-oz. package, 15c. Consisted simply of a white powder in an envelope; when made according to directions a flavorful mushroom soup is obtained; simmer 10 minutes. This soup is improved by admixture with milk or meat stock. Served 6 to 8. Price per portion, 1.9 to 2.5c. **2**

Habitant Noodle Soup Mix (Habitant Soup Co., Manchester, N. H.) 2½-oz. package, 10c. No vegetables apparent in finished soup; had a quite beefy taste; needed salt to improve taste which is a good thing, being a sign that soup stock was not weighted with salt; noodles and stock packed separately; simmer 7 minutes. Served 4. Price per portion, 2.5c. **2**

Lipton's Continental Noodle Soup Mix (Continental Foods, Inc., Hoboken, N.J.) Three 2½-oz. packages for 25c. No vegetables apparent; taste very well liked; noodles and stock packed together; simmer 7 minutes. Served 4, but more can easily be served, as dilution to 6 portions does not weaken the flavor too much. Price per portion, 2.1c. **2**

Tetley Jif-e Vegetable Noodle Soup Mix (Joseph Tetley & Co., 483 Greenwich, New York 13, New York) Three 2½-oz. packages for 25c. No vegetables apparent; taste mild; noodles and stock packed together; simmer 7 minutes. Served 4; when diluted to 6 portions the taste was somewhat flat. Price per portion,

2.1c. **2**

Mary Lynn Vitaminized Soup Mix, Vegetable-Noodle with Beef Extract (Lynn Food Products Co., Div. Century Metalcraft Corp., 5948 N. Broadway, Chicago) 2½-oz. package, 15c. Contained some dried vegetables; had a strong flavor but taste was not aromatic; noodles and stock packed together in glass. A vitamin capsule was furnished, to be dissolved in the finished soup, this addition being questionable by reason of the false impression the average consumer would receive as to value of the addition. Simmer 10 minutes. The addition of a tablespoonful of butter is recommended. Served 6. Price per portion, 2.5c. **2**

Minute Man Noodle Soup Mix, Chicken Fat Added (Skinner & Eddy Corp., Skinner Bldg., Seattle 1, Wash.) Three 2½-oz. packages for 25c. No vegetables apparent in the finished soup, the taste of which was liked; noodles and stock packed separately; simmer 7 minutes. Served 4. Price per portion, 2.1c. **2**

Stahl-Meyer Vegetable Noodle Soup Mix (Stahl-Meyer, Inc., 172 E. 127 St., New York 35, New York) 2¾-oz. package, 15c. Contained many dried vegetables; had a pleasant aromatic taste and mild flavor; noodles packed separately; simmer 20 minutes. The addition of a tablespoonful of butter is recommended. Served 6. Price per portion, 2.5c. **2**

White Rose Noodle Soup Mix (Seeman Brothers, Inc., 121 Hudson St., New

York 13, New York) 2½-oz. package, 10c. No vegetables apparent in the finished soup, the taste of which was liked, but the flavor was somewhat weak and a bit salty; noodles and stock packed separately; boil 7 minutes. Served 4. Price per portion, 2.5c. **2**

French-Kettle Onion Soup (French-Kitchen Foods Corp., Chatsworth, Calif.) 3¼-oz. can, 34c. Dry vacuum packed. Required somewhat more trouble in preparation than other soups, but made a soup with excellent body and taste. Each can contained (1) an envelope of soup stock, (2) an envelope of grated cheese, (3) four croutons (small pieces of toast to float on the soup), and (4) dried browned onions. Boil 10 minutes. This soup is much improved by the addition of milk. Served 4. Price per portion, 8.5c. **3**

* * *

Sardik Tomato Juice Cocktail (dehydrated) (Sardik Food Products Corp., 420 Lexington Ave., New York 17, New York) 3¼-oz. jar, 35c. Although this product is not a soup, it was included in the study because it was a related dehydrated product. If made according to directions, a really palatable tomato juice results. This juice was compared with the canned tomato juices on the market, and did not separate under centrifuging any more than the other brands. The taste was that of a good tomato juice. Ten 4-oz. servings.

An Economy Hint for Photographers

WITH PHOTOGRAPHIC SUPPLIES becoming increasingly hard to get, any method which will prevent avoidable waste of these valuable materials will be of great interest to the photographic amateur. It is suggested that amateur photographers may wish to try the following method for saving prints or enlargements spoiled by overexposure.

A stock solution of potassium ferricyanide of any convenient strength is made and kept in a dark-colored bottle. Whenever a print comes up too dark, it is allowed to develop for the normal time, no matter how

dark it becomes, then fixed and washed fully in the usual manner. Sufficient water to cover the print properly is placed in a tray and to this is added enough of the ferricyanide to give it a very pale straw color after thorough mixing. The print is then placed in this solution and the tray rocked vigorously. The print should be removed quickly, washed, and placed in a bath of fresh plain (not acid) hypo just before it reaches the right degree of lightness of tone. The print is then thoroughly washed. (The tray used for the ferricyanide solution should not have any ex-

posed iron, otherwise reaction with the ferricyanide may produce blue stains on the print.)

Sometimes a print will look right in the wash water, but will dry too dark. The same process may be used, but the print should be soaked at least a half hour in water at 65°F to 70°F before using the reducer. The gelatine in the emulsion having once gone through the developing, fixing, and drying processes, especially if a hardening chemical has been used in the fixing bath, is much slower in absorbing water. If the absorption is not uniform, the reducer will cause streaks.

The Ubiquitous Vitamin Preparations—II

By ERWIN DI CYAN, PH. D., AND STELLA STAKVEL, B.A.

This is the second of two articles by Dr. Di Cyan and Miss Stakvel. The first, which appeared in February, discussed the need for vitamins and minerals, the relative importance of the different vitamins and minerals, and whether they should be secured in food or in medicinal products. It also presented a table giving the minimum daily requirements of vitamins and minerals for health, and a table of conversions for the various vitamin units—U.S.P., I.U., Sherman-Borquin (for B₂), and milligrams.

THE subject of this month's evaluation is one of the presently popular types of ABDG-with-C capsules, which

contains vitamins A, B₁, B₂, C, and D.

Some ABDG-with-C capsules are packed with an equal number of mineral capsules and are generically known as *Vitamin-and-Mineral Capsules*. Some are designated by trade names, and directions call for the simultaneous administration of a light and a dark capsule. The mineral capsules unfortunately contain only a small fraction of the minimum daily requirements of the minerals calcium and phosphorus as was made plain in Table I of the article

A Contains per tablet or capsule

Brand Name & Manufacturer or Distributor	USP units A	mg. B ₁	mg. B ₂	mg. B ₆	mg. C	USP units D	mg. Pantothenic Acid	mg. Ni-acin	mg. Niacinamide	Cost per 100 caps. or tabs.
Special Vitamin Formula E. R. Squibb & Sons	5000	2	3.	—	75.	800	—	—	20.	\$6.00
Pantovim Liberty Vitamin Co.	5000	3.	2.5	0.2	50.	1000	1.	—	20.	4.79
Vi-Delta Multi-Vitamins Formula A, Lederle Labs.	5000	3.	2.	1.	50.	500	10.	—	20.	5.72
Dayamin Abbott Labs.	5000	3.	2.	1.	50.	500	1.	—	20.	7.74
Multicebrin Eli Lilly & Co.	5000	3.	2.	1.	50.	500	1.	—	20.	7.74
Neo Multi-Vi Capsules White Labs.	5000	1.5	2.5	1.	50.	500	1.	—	20.	4.95
ABDEC Kapsseals Parke, Davis & Co.	5000	1.5	2.	0.25	50.	500	3.	—	10.	5.76
Vi-Magna Tabs. Lederle Labs.	5000	3.	2.	0.2	30.	500	10.	—	20.	5.72
Biomines Fred. Stearns & Co.	5000	2.	2.	0.25	30.	800	0.5	—	25.	5.35

Note: *Hexavitamin Capsules* containing 5000 U.S.P. units of vitamin A, 2 mg. of vitamin B₁, 3 mg. of vitamin B₂, 75 mg. of vitamin C, 400 U.S.P. units of vitamin D, and 20 mg. of niacinamide were to have become official in January 1944; through a Supplement to the U.S.P. XII the half strength formula instead, has been made official. Purchasers of this half strength formula combination should note that two capsules of the half strength formula will supply one dose of at least minimum daily requirements of the vitamins.

A (Cont'd)

The following while deserving of the *A* classification do not have sufficiently distinctive differences from each other to be separately judged. They may be evaluated approximately on the basis of relative price. Listing is alphabetically by manufacturers' names.

Brand Name & Manufacturer or Distributor	Contains per tablet or capsule									
	USP units A	mg. B ₁	mg. B ₂	mg. B ₆	mg. C	USP units D	mg. Pantothenic Acid	mg. Niacin	mg. Niacin-amid	Cost per 100 caps. or tabs.
<i>Benefax</i> Anacin Co.	5000	1.5	2.	—	37.5	1000	—	10.	—	\$2.89
<i>Avicaps</i> Burroughs, Wellcome & Co.	5000	1.	2.	—	30.	500	—	—	10.	4.81 [3.85 for 80]
<i>Ol-vitum Caps.</i> International Vit. Co.	5000	1.5	2.	0.2	30.	1000	1.0	—	20.	3.98
<i>Vigran Caps.</i> E. R. Squibb & Sons	4000	1.	2.	—	30.	400	—	—	10.	3.98
<i>Plenamins</i> United Drug Co.	5000	1.5	2.	0.05	30.	1000	1.	—	20.	6.65 [4.79 for 72 doses]
<i>Vi-Syneral</i> —for adults U.S. Vitamin Corp.	4000	1.5	2.	—	30.	575	—	—	10.	9.00 [4.50 for 50 doses]
<i>ABDG&C Caps</i> United-Whelan	5000	1.5	2.	0.2	30.	1000	1.	—	20.	3.78
<i>Unicap</i> Upjohn Co.	5000	1.5	2.	0.2	30.	500	1.	—	20.	3.95
<i>Vitamins Plus</i> Vitamins Plus Inc.	5000	1.	2.	0.1	30.	500	0.25	—	10.	6.80 [4.89 for 72 doses]
<i>Walkers Vit. Tabs. Minrlz.</i> Walker Vit. Co.	5000	1.5	2.	0.1	30.	500	1.	—	10.	5.00 [2.50 for 50]
<i>Polytaxin</i> Winthrop Chemical Co.	4000	1.	2.	—	30.	400	—	10.	—	4.79

"The Ubiquitous Vitamin Preparations," CR BULLETIN, February 1944, page 6. Thus administration of such capsules is economically unsound.

Many brands on the market look imposing with a long list of minerals starting with copper (which happens to be present in a sufficient quantity due to the exceedingly small amount of that element required by the body) and ending with zinc. The purpose of supplementary administration of zinc is not apparent to the competent nutritionist, and the need for its use has not been definitely established for human beings, although it is known to enter into some meta-

bolic functions of the body. (Like copper, zinc in any case probably enters the body in foods and beverages in amounts considerably greater than needed, due to contamination from pipes, tanks, cookers, etc., in the processes of food manufacture.) Therefore in this evaluation, *only the vitamin capsules of vitamin-mineral combinations* are judged by proportion of ingredients and number per box; this evaluation therefore reflects not on the quality of the various vitamin capsules which are appraised, but on the price per unit.

In a similar fashion, some brands have vitamins divided between two distinctively iden-

tified capsules, with directions that two capsules constitute a dose. Such a case is treated by considering the number of capsules for one dose; that number is divided into the number of capsules per box, in conformity with the general scheme of evaluation and for the sake of uniformity in the basis of comparison. Thus, for example, a box containing 144 capsules of the sort described can only be considered to function as a box of 72 capsules. This method serves to bring out the comparative differences in price; the potency and value of the vitamin capsules are judged separately from and independently of considerations of price.

The method of evaluation used is based upon the following rules:

1. When a given product contains all of the vitamins per tablet or capsule on which the need in human nutrition *has been* established, and contains *at least* the minimum daily requirements as set forth by the Food and Drug Administration, it is given the *A* rating. Its approximate standing as to relative economy is reflected by its position in the listings; the relatively better buys are listed first. The price evaluation does not take into consideration the contents of vitamins B₆, E, and pantothenic acid, on which the Food and Drug Administration has not established minimum daily re-

quirements.

2. When a given product *does not contain all* of the vitamins per tablet or capsule as to which the need in human nutrition has been established, but contains *at least* the minimum daily requirements of the vitamins per tablet or capsule it affords, the product is given the rating of *B*. Items in the *B* group are arranged alphabetically by manufacturers' names.

3. When a given product contains vitamins per tablet or capsule in quantities *less than* the minimum daily requirement as set forth by the Food and Drug Administration, it is given the rating of *C* as there are competing products which *do* contain the minimum daily require-

ments of each of the vitamins known to be needed, in each tablet or capsule. These products are listed alphabetically by the manufacturers' names. Into this category are also placed brands which may have the correct proportion of the minimum daily requirements of some of the vitamins divided among 2 or 3 tablets or capsules, necessitating the taking of 2 or 3 tablets or capsules as a dose. As to those, the average consumer, in buying, will often think in terms of price *per hundred tablets or capsules*, and thus they will seem relatively inexpensive. Thus he may not realize that the price is really 2 or 3 times as high, for a box of 100 will provide only 33 or 50 doses, not 100 doses.

B

Contains per tablet or capsule

Brand Name & Manufacturer or Distributor	USP units A	mg. B ₁	mg. B ₂	mg. B ₆	mg. C	USP units D	mg. Pantothenic Acid	mg. Niacin	mg. Niacin-amid	Cost per 100 caps. or tabs.
<i>Totavites</i> Day Chemical Co.	5000	1.5	2.	0.25	—	800	—	—	—	\$3.50
<i>Grove's Vitamins</i> Grove Labs.	4000	1.	—	—	—	400	—	—	—	1.39
<i>IVC Pearls Improved</i> International Vit. Co.	5000 *	1.	—	—	—	500	—	—	—	1.19
<i>Vitamins</i> Kilmer & Co.	4200	1.	—	—	—	500	—	—	—	1.25
<i>Alpha-Beta-Deltalin</i> Eli Lilly & Co.	5000	1.	2.	—	—	500	—	—	—	2.79
<i>ABDG Tabs.</i> E. R. Squibb & Sons	4000	1.	2.	—	—	400	—	—	10.	2.69
<i>High Potency Vit. Caps.</i> E. R. Squibb & Sons	4000	1.	2.	—	—	400	—	—	10.	2.98

Note: All the vitamin preparations in these charts were checked by visiting an average drugstore in New York City to anticipate or duplicate conditions which the consumer would meet in purchasing these vitamins. The findings in the first store were verified by checking them in three other drugstores in New York City and in one in Detroit and one in Chicago. The items were then rechecked at the original sources in New York City. Although every effort was made to have this list of vitamin products correct and up to date, changes in formulation of some products may have been made by some manufacturers or errors may have crept in. We shall be glad to have our attention called to any such.

C

Contains per tablet or capsule

Brand Name & Manufacturer or Distributor	USP units A	mg. B ₁	mg. B ₂	mg. B ₆	mg. C	USP units D	mg. Pantothenic Acid	mg. Niacin	mg. Niacinamid	Cost per 100 caps. or tabs.
Vita Caps improved Abbott Labs.	5000	1.5	0.5	0.2	25.	500	0.2	—	20.	\$4.69
Vita Caps plain Abbott Labs.	5000	1.	0.2	—	10.	500	—	—	—	4.29
ABDG improved Abbott Labs.	5000	1.	0.4	—	—	500	—	—	—	2.98
Hi-V Vitamins (Wool- worths) Hi-V Vitamin Corp.	2500	0.5	1.	0.05	—	250	0.5	—	5.	1.05
Vi-Penta Perles Hoffmann-La Roche	4000	1.	0.1	—	25.	400	—	—	—	3.73
ABDG with C International Vitamin Co.	5000	1.	0.5	—	30.	1000	—	—	—	2.57
Vimms Lever Bros. Co.	1666	0.33	0.66	—	10.	166	—	3.3	—	1.76 [1.69 for 96 tabs.]
Pepps Liberty Vitamin Co.	1333	0.3	0.6	—	17.	133	—	—	3.3	1.82
Globules Vit. ABDG & C R. H. Macy Co.	5000	1.	1.	—	30.	500	—	—	—	1.68
Abdol plain Parke, Davis & Co.	5000	0.75	0.1	—	—	500	—	—	—	2.69
Abdol improved Parke, Davis & Co.	5000	1.5	0.2	—	—	500	—	—	—	2.98
Abdol with C Parke, Davis & Co.	5000	1.5	0.2	0.2	30.	500	—	—	20.	4.69
Pargran-V E. R. Squibb & Sons	1500	0.5	0.75	—	20.	200	—	—	5.	3.00
Vitetrin Caps. E. R. Squibb & Sons	2000	0.5	1.	—	—	200	—	—	5.	1.79
Slams Standard Brands	1666	0.33	0.66	0.08	10.	166	0.17	3.3	—	1.76 [1.69 for 96 tabs.]
ABDG Tabs. United Drug Co.	2500	0.15	0.025	—	—	250	—	—	—	1.19
ABDG Caps. United Drug Co.	5000	1.	0.5	—	—	800	—	—	—	1.79
Multamins United Drug Co.	5000	1.5	0.5	—	—	800	—	—	—	2.89
Multamins with C United Drug Co.	5000	1.5	0.5	—	30.	800	—	—	—	4.59
ABDG Caps. United-Whelan	5000	1.	0.5	—	—	1000	—	—	—	1.98
Olafsen AY-Tol Valentine Labs., Inc.	5000	1.	0.5	—	—	1000	—	—	—	1.79
AY-Tol with C Valentine Labs., Inc.	5000	1.	0.5	—	30.	1000	—	—	—	3.19

Gasoline Dopes

AS ONE special aspect of wartime shortages, the selling of "gasoline dopes," materials alleged to increase mileage per gallon of gasoline or add more pep or something to the operation of the engine, has received a great stimulus lately and has been much in evidence on the radio and elsewhere. Of course, under present conditions where everyone is limited by rationing to the amount of gasoline he may have, special emphasis is put on the supposed increase of mileage which these pills or liquids will produce. Many subscribers have written to ask whether these dopes, particularly the one or two that happen to be most heavily advertised at the time, will increase mileage as claimed when added to the gasoline, and whether they will harm the engine.

The time may come when something will be discovered and reported on by scientists which can be added in small quantities to increase gasoline mileage at a cost which is economically practicable, but all consumers should understand that these magical results cannot be produced by the use of any chemical nostrum or commercial product yet discovered. There is a very good test for all such "inventions," and every consumer should get into the habit of applying this test to everything that is advertised as a new and important invention or improvement. When such a substance is really invented, it and its inventor and his experience and training will be given wide publicity and fully and freely discussed, and articles with full details and ex-

planations of ingredients and method of action will appear in respectable technical and scientific journals; any information so important to people as a whole and to science will not be left to be disclosed and described solely in the advertising pages of popular magazines or on radio stations which feature every sort of "patent medicine," sometimes for cars but usually for human ailments.

The National Bureau of Standards has made extensive studies in this field over a period of years, and its conclusions are simple and clear:

"Gasoline dopes which are sold for addition in small quantities to gasoline can be accepted as of value *only on conclusive evidence that they are effective*. *They cannot be expected to improve starting, decrease crank-case dilution, or prevent vapor lock.* So far as information is at hand, no materials which in small quantities reduce knock are sold separately for mixture with gasoline. Maximum power cannot be affected by small additions of any known substances, except as they affect fuel knock. Carbon formation and fuel economy are so dependent on adjustments and operating conditions that proof of the value of dopes is more difficult. In the testing of some one hundred fifty such dopes at the Bureau of Standards, exclusive of the well-known knock suppressors, *not a single instance of any important improvement has been observed in any feature of engine performance.*" (The emphasis in the foregoing by the use of italics is CR's own.)

The Bureau refers to "conclusive evidence." What is conclusive evidence from the consumer's standpoint? It can be nothing less than a signed report made by an engineer or physicist of competence, working in a laboratory of repute and standing, that the addition of the product in specified quantities and at stated cost improved the gasoline mileage by a definitely stated amount in a car and engine of strictly standard design and construction *without any changes or adjustments being made to the engine, car, or fuel system.* The latter is a most important point, for it is easy to obtain improved mileage with these dopes *if other things are done at the same time.*

Promoters of these products often seem to produce proof of the value of their fuel dope because with the product they sell instructions for bringing about improvements in the performance and economy of the engine—not because the engine inherently needed their device or gadget, but because like most engines, its timing was poorly adjusted, and its gasoline mixture was much too rich. It is these instructions for doing something to an engine *that ought to be done anyway and as a matter of course* by every owner who wishes to get the maximum mileage from his car, and it is these instructions which are the product that is really being sold, rather than the dope poured into the tank. The instruction usually relied upon to turn the trick is the one which calls for some change which produces a leaner mix-

ture, for "almost without exception carburetors are set for a mixture ratio that is much too rich for maximum fuel economy."

The common practice in the sale of these products is to offer proof of their supposed value, not in the form of the test report from a reputable and competent technical agency which has been discussed, but in the form of a signed letter from some employee or official of a city police department or other public agency. Such opinions, however, should be given no more weight than a testimonial for a patent medicine such as *Doan's Kidney Pills* or *Bromo Seltzer*. Somebody's opinion, even a high police official's, does not prove anything about such a product. A test under properly controlled conditions does, and such a test should be one made with an automobile engine of standard type, construction, size, and adjustment, mounted on a proper test bench and operated with careful control of expert engineers, using accurate measuring and recording instruments. This permits the elimination of the variable factors which often produce

spurious evidences of saving when a "test" is made by use of a police department car or other automobile.

One of the gas-saver products uses in its advertising a so-called laboratory report which is not a proper scientific or technical report at all, but merely alleges on an impressive letterhead that the addition of certain tablets *should* increase the gasoline mileage or remove carbon, etc. Any such report is, of course, without meaning from the consumer's standpoint; its utility is as an aid to sales promotion, for the important point is, *at what cost* do the asserted results occur, and *quantitatively* how *much* is the mileage increased (if it is increased at all)?

Just at the present time, *Vitaplus*, called in the advertising a "gasoline additive," is the product in this class which is receiving the most advertising; it sells at \$3 for 100 tablets. Each tablet is supposed to pep up a half-gallon to one gallon of gasoline. Like its predecessors this product was found on test to have no beneficial effect on engine performance. Unfavorable findings by the Bureau

of Standards on *Vitaplus* were confirmed by less exact tests in the form of road trials conducted by Better Business Bureaus.

As the Nat'l Better Business Bureau has said in one of its releases, "It seems obvious that if any dope could be added to gasoline to make it give a substantial increase in mileage the U. S. government would be the largest customer for the product at this time." Actually, the government "instead of putting these dopes in jeeps and bombers, . . . finds that they are without beneficial effect." Government agencies have given a great deal of time to proving the uselessness of all sorts of products of this type. The Bureau of Standards as already mentioned has investigated 150 such preparations, including *Vitaplus*, and the answer was much the same in every case: No useful effect, or does not perform as claimed. Most of the products in one series of chemical analyses made at the University of Colorado were found to be made of naphthalene, whose odor is familiar to all in the ordinary "moth balls" or naphthalene flakes.

To Help Keep Auto Windshields Clear

A PRODUCT intended to prevent dew or steam from forming on cold surfaces so as to keep windows or windshields clear in the presence of dampness is widely sold in 10-cent stores and other stores under the name *Mystic* (The American Products Co., Cincinnati; 10c). It is recommended by its manufacturer for use on automobile windshields and windows. In a recent test of *Mystic* for CR, the chemist reported that the product contained principally soap in a gel

form, together with a small amount of a synthetic organic detergent, similar to *Suds* or *Dreft* and a large amount of a viscous water soluble liquid similar to glycerin. There was also present a small amount of sodium metasilicate, an alkaline detergent.

An actual trial of the material under artificial severe conditions showed that it performed for a period, in accordance with the label claim: "Keeps glass clear of snow, rain, steam, or

frost." *Mystic*'s function is apparently to act as a cleaning and wetting agent; the droplets condensed from steam or water vapor are dispersed, instead of remaining as distinct minute water drops that would interfere with clear vision much worse than would a thin film of liquid.

The directions for use say that *Mystic* should be applied daily; under unusually bad conditions, it might be necessary to re-apply the product after an hour or so of driving.

The Art and Technique of Walking

By M. BECKETT HOWORTH, M. D.



WALKING is older than recorded history. Man is the only animal that walks erect on his hind legs. In infancy he first lies on his back, waving his arms and kicking his legs in the air, or he lies prone, making swimming movements with his extremities. In time he twists, and learns to turn over, and to sit alone. Soon he learns to lift himself on his hands and knees, and creeps. Then he pulls himself up onto his feet, and hanging to any support, stands, then moves about. Finally comes the great day when he stands alone, surprised and dismayed, unsteady and seeking support. At last he takes his first step, and he is off.

Walking is normally done with little effort or attention, and is taken for granted. The child walks with ease and relaxation, varying his speed, style, position, and effort with his momentary needs and desires. As we grow up, aided by convention, clothing, pavements, and habit, we tend to assume one style and one pace, to become more rigid in position and to dislike changes of effort. Whereupon walking loses much of its interest and value.

The Effect of Walking

As we walk, one thigh is raised, the leg and foot swinging forward into extension, the heel striking for the next step, while the rear leg, remaining straight, thrusts forward, first

from the whole foot, finally from the toes.

The front thigh muscles contract for only a fraction of a second, with a sort of rippling movement, in swinging the leg forward. The muscles in front of the ankle contract similarly to prevent the foot from dragging just before the heel strikes.

As the heel strikes, all the thigh and ankle muscles contract to stabilize the knee and ankle until the weight is thrust forward again by the calf.

The muscles of the hip swing the thigh forward, then stabilize it, particularly on the outer side to prevent the pelvis from falling on the inner side as the weight goes on the leg.

Similarly, the trunk muscles—abdominal, flank, back, and chest—contract to hold the trunk erect and to swing the leg. The opposite arm swings forward with the leg by contraction of the shoulder and hip flexors, and the wrist extensors, and back by the action of their antagonists.

The diaphragm, abdominal muscles, and muscles of the ribs expand the chest and lungs as we breathe. These contractions are normally brief, slight, and wave-like, and momentum and rhythm considerably reduce the muscular effort required. However, effort must be much greater if the speed is increased, or momentum and rhythm disturbed.

The action of the muscles is dependent on the circulation,

the heart, the lungs, and the nerves. Fuel for muscle action is brought by the arteries, and waste products are carried away by the veins, with the heart acting as the pump for the circulation of blood. The blood flows through the lungs, where carbon dioxide is eliminated, and oxygen for combustion acquired, and through the liver, where fuel, stored from the digestive tract, is obtained.

The nerves carry the stimuli for contraction to the muscle, and the sense of position to the central nervous system. Thus most of the muscles, and most of the organs and tissues, participate in the simple act of walking. That is one reason walking is such good exercise.

Walking may be affected by pain, weakness, stiffness, or deformity, and a limp may result. Pain may be caused by an injury, such as a sprain, fracture, or bruise, a blister, or a corn, or an inflammation, such as arthritis. Weakness may be due to many things, such as lack of sleep, improper diet, illness, heat, humidity, exposure to ultraviolet radiation, a poor heart, lung disease, or nerve or muscle damage. Stiffness may be due to muscle or joint damage, tenseness, or "bound" muscles. There may be deformities such as knock-knees, bow legs, short or twisted legs, club feet, hammer toes, high or relaxed arches. It sometimes seems a wonder that any of us can walk at all!

Importance of Proper Clothing

Clothing, especially shoes and socks, have an important relation to walking. Clothing should be light, comfortable, and free. It should be warm enough, but most people are inclined to wear too much while walking, carry too little for reserve while resting, or when caught in a storm, or out overnight. Several layers, wool in the middle, wind- and shower-proof outside, are not only warmer, but much more easily adjusted to changing conditions. In high mountains there may be changes of up to 100 degrees Fahrenheit within a few hours, and the wind velocity may rise to a hundred miles an hour or more, with enormously increased cooling effects due to evaporation of bodily moisture. Extra clothes, including mittens, helmet, gaiters, and extra socks, and sun goggles, are needed under such conditions.

The desirable number, material, and thickness of socks varies with the condition of the feet, the shoes, and the weather. Wool socks are usually preferable, but should after shrinkage be at least a quarter of an inch longer than the foot. They usually fit better than cotton or silk, are softer and less apt to rub, but they dry more slowly, and are apt to shrink more. A thin cotton or silk sock may be preferred next to the skin. Usually two pairs of socks are desirable, for warmth, cushioning, and reducing friction. The outer should be larger and usually thicker than the inner sock, to prevent wrinkles. Three pairs may occasionally be advisable. Inner soles, preferably of hair or felt, provide warmth and padding, and help to absorb moisture.

Sensitive or deformed feet,

or feet with corns and callouses, need more padding. Feet with poor circulation, especially those which have been previously frostbitten, require more insulation. Too much insulation, however, causes sweating, and the moisture increases likelihood of chilling, and danger of frostbite. This last danger may be reduced by putting talc on the feet, and by drying or changing the socks.

Proper Types of Footwear



The type of shoe varies somewhat with the foot, the weather, and the terrain. All walking shoes should have certain characteristics. They should have *low, wide heels, straight inner lines, broad rounded toes* with a high box, and be strong and heavy enough for the foot and the conditions.

A heavy person needs a stronger shoe and a heavier sole. A sensitive, deformed, or calloused foot will need softer, smoother leather, but a heavier sole.

Shoes exposed to cold, wet, oil, alkali, sharp rock, etc., should be adapted by their material and construction to these particular uses. The moccasin, sport oxford, or light sneaker is suitable for short walks in dry, smooth country. The Boy Scout or Munson-last army shoe, or heavy sneaker are good for average walking.

A rubber composition sole grips better on most surfaces than leather. A canvas upper soaks up water but dries quicker. The Barker boot, with rubber lower and leather upper, is suitable for snow and for swampy country, but when once wet over the top or with per-

spiration, does not dry well; it is apt to be hot and sweat-provoking. Sneakers are good for rock climbing, but dangerous on ice. Rope or felt soled shoes are safer for wet or icy surfaces, and certain kinds of rock. Hobnails are good for all around use, gripping well on most rock, snow, ice, grass, and wet surfaces. Tricouni nails are harder, and better for steep grassy surfaces, and ice. The soles should be thick enough (two or three layers) to carry the nails, and to protect the feet from the roughness of terrain. The lining and seams and insole should be smooth and flexible.

High boots are needed only in very wet, or snake-infested country. The toe box should be hard, to protect the toes from injury. In any case, the shoe should be no heavier or stiffer than necessary for its purpose.

Hiking Accessories



The rucksack or knapsack has a close relation to walking. Whether it be a small sack for the day's lunch, or one stocked for a week's trip, certain features are important. It should be smooth and comfortable on the back, snug enough not to slip around and throw one off balance, large and strong enough to hold one's belongings, and waterproof, with good covering material. The shoulder straps should be wide and flat, easily adjustable, but secure and padded if the sack is heavy or the collar bones sensitive. A frame type, e.g., Bergans, adds stability, and keeps the pack off

the back, reducing perspiration, but adds weight, tends to throw the balance backward, reduces the capacity, and is expensive.

A small rucksack should ride fairly high on the back, but the straps should not be snug enough to constrict the circulation or movement at the shoulders. A large sack should ride lower, but if too low, tends to fall back and greatly increase the strain and effort of the bearer. A tall sack is apt to sway, and in this type especially, the heavier articles should be packed at the bottom and close to the back. It is undesirable to have loose objects dangling from the rings and strings at the sides, but if necessary a jacket may be tucked under the top flap.

In any case it is easier to carry one's things in a rucksack, than in anything carried in the hand, as the back is more adapted to carrying the weight, and the hands are left free for other uses.

Check on Your Physical Condition

The walker should have some concern for his physical condition, especially on long, hard trips. A number of walkers have paid with their lives for failure to observe this rule. It is well to have a physical examination, including urinalysis and blood pressure, at least biennially, oftener in case of doubt, e.g., a previously weak heart, unusual stress, fresh symptoms.

It is much better to know one's limitations, than to discover them in a snowstorm on top of a mountain. The walk should be less in speed, distance, and vigor than one's capacity. Competition is uncalled for in walking for recreation, and it is no favor to one's lead-

er or oneself to exceed one's ability. The body is not strengthened, but weakened by excess. One's capacity can be improved by adequate rest, a proper diet, regular moderate exercise, e.g., setting-up exercises, swimming. *Excess weight* and *smoking* reduce the capacity of the heart and the muscles for walking.

Proper Food and Rest

The diet should include protein foods such as meat, milk, eggs, cheese; fat, such as butter; fruits, and vegetables; enough starch and sweets for energy; and vitamins, roughage, and water. It is best on the day of a hard walk to eat moderately. Lunch should be light unless there is a long rest afterward.

There should be four or five light meals on long, strenuous walks, rather than three heavier ones. Raisins and chocolate are rather indigestible. A good lunch should include a fruit, meat or cheese, bread, and a sweet. Nuts and honey (in reasonable amounts, of course) as a part of the meal, are good. Water should be drunk in small quantities, as often as needed, but sun-parched lips, or cold-parched throat should not be mistaken for thirst. Snow and rain water are deficient in mineral salts, and when they are drunk in quantity, a little salt can be added, one level teaspoonful per pint, especially in hot, dry weather, or when there is much sweating. Snow and ice may parch the mouth, especially in cases of wind burn or sunburn, and should therefore be melted first, if practical. It is best not to drink much water at meal-times, when on a walking trip. Alcoholic drinks reduce, rather than improve, one's strength, and besides increase the danger

of exposure to cold. They should be reserved for relaxation *after* the walk.

Rest periods should vary with the condition of the walker, the type of walk, and the weather. Probably the walker who selects a pace and rhythm which he can maintain for the whole walk will cover the most ground with the least energy, but he may not have as much fun. Usually increased speed requires a greater increase in energy, as does erratic walking, but the photographer and the nature lover usually prefer to walk faster at times in order to stop longer and oftener.

Normally a short rest in the morning and the afternoon, with a moderate rest at noon, is desirable, but additional rests may be necessary for steep grades or when heavy packs are carried. The Army method of resting five minutes every hour is very satisfactory. The best position for resting is lying with the feet propped up, but sitting is usually sufficient, while at high altitudes or with heavy packs it is often better to rest standing than to use up energy getting down and up. Adequate sleep, and an occasional day of rest from hard exercise are advisable, especially during conditioning or acclimatization.

Making Time



Speed may be acquired by tilting the body forward, thrusting harder with the legs, and even a slight crouch, with a longer arm swing. The length of stride should not be too great, as the effort of forcing the body to reach the forward leg be-

comes excessive, or too short, and energy is wasted in swinging the legs too many times.

Uphill speed may be increased by leaning forward and in a crouch, and forcing the body well forward on a high step. Breathing should be deeper rather than faster, and in rhythm with the other movements. There should be no tenseness of the muscles, for this results in quick fatigue. Nor should there be any disturbance in rhythm or smoothness, as one will quickly lose rather than gain in accomplishment.

Downhill walking also requires a forward lean and slight crouch, to reduce the shock of each step, as well as the chance of a slip. On a very steep slope, a slight turning to the side, or zigzag traversing, will help. Relaxation is most important in downhill walking, especially "loose knees." The movement then becomes almost a dance, with light quick steps, or a series of slides, similar to skiing. Small jumps may often be used. The knees are usually kept close together in this technique. The crouch brings one closer to the ground, with the muscles and joints acting as springs, minimizing the possibility and danger of a fall. Most falls are backward, with the body extended, in a blind direction, the weight coming hard on the coccyx or wrists. These falls can be avoided by the method mentioned.

Proper Placement of the Feet

Normally the whole foot should be placed upon the ground. Walking on the toes reduces the strain on the front thigh muscles, but increases that on the calves and on the ankles. Toe walking is suitable for short distances steeply

uphill on narrow trails, but usually it is better to turn the feet to the side, together or in herringbone fashion, and use the whole foot. Proper placement of the foot is important, so that it will be as nearly horizontal as possible, on a solid surface, and one which is not slippery. Usually rock is safer than grass, gravel, damp soil, slippery logs, snow, or ice.

The security of the foot may be increased by increasing the area of contact, pushing into the surface perpendicularly, or pushing the side of the foot against an adjacent surface. The instep may be more secure than the ball of the foot on a rounded surface; the heel is usually least secure. The hands may be used for balance, or even for assistance in pulling up steep places, but the bulk of the work should normally be done by the legs. Facing out is usually best in climbing downhill, but for difficult downhill climbing it may be preferable to face sideways or even inwards toward the face of the rock or mountain slope.

First Aid

Walking accidents are uncommon, and largely unnecessary. Most of them are due to carelessness, fatigue, or not knowing the principles of walking as expressed above. Blisters are probably the most common injury, but can be prevented by keeping the feet clean and dry, and using proper shoes and socks. Callouses may be prevented or if already acquired can be protected by proper footwear, and sometimes by special pads.

A sprain is an overstretched or torn ligament. A sprained ankle is usually due to fatigue or carelessness; it is especially likely to occur when walking in leaves or soft snow on rough

ground. It is best to elevate the foot and apply cold at once. If walking is necessary, a proper adhesive strapping should be applied, or an Ace bandage, and a cane used, but walking is likely to make the sprain worse if it is a real one, and it is not always possible to tell at the beginning. Sometimes fractures are mistaken for or associated with sprains. A sprain, however, should not be taken lightly, for a severe sprain may be very painful and disabling. Medical attention should be sought as soon as possible for any injury that might be either a sprain or a fracture. The walker should be familiar with the principles and practice of first aid.

The Joy of Walking

What can walking do for me? First, it provides exercise for the whole body, variable in intensity and duration as desired, exercise which anyone can do at any time of day or year, alone or with others, without special equipment, at little or no expense, usually in clean fresh air, sometimes in sunshine, and with numerous additional attractions. It will strengthen weak arches (but will not alone cure flat ones), will reduce weight (not as effectively as dieting), tone up flabby muscles but not take off patches of fat at desired spots. It will put a sparkle in your eye and a glow on your cheeks (without cost).

You know as much of the art of walking as I do. It consists of walking in rain, fog, or snow, as well as on clear days or by moonlight. Some of its most beautiful moments are in storm. It consists of knowing what to eat and drink, and how to prepare and consume it, alone or with others; how to make

or erect a shelter; how to find comfort in a sleeping bag; the names of flowers, their structure, their odors, and how they grow. The names of birds, their flight, their songs, their eggs and young, their virtues and their vices. How the earth is made, its hills and valleys, its rocks and soil. Streams, a trickle on a rock face high on a cliff, or a Valley of a Thousand Falls; a cool drink from a

spring, a hot face washed in a tiny brook, or a tingling bath in a mountain stream or glacial pool. Fire, for a cup of tea, or a full meal at the end of day, a fire for warming, or a big campfire with tales and song, and even the dread forest fire. Scenes, big, little, at all angles and all distances, with snow, or the greens of spring climbing uphill, the great flower beds of

summer, evergreen forests, glaciers, ice in chimneys, the colors of fall; and clouds, all kinds, never two alike, never a sky the same; and pictures, with their memories. Last, and most important, companionship, all sorts, cheerful or glum, bright or dull, active or lazy, skillful or clumsy, bold or timid. Of all such is the art and pleasure of walking.

Resin-and-Casein Water Paints

WITH AUTOMOBILE TRAVEL curtailed and public transportation badly overcrowded, and various means of recreation made less available to everyone, many people today are finding satisfaction in doing things to make their homes more attractive. There has been a marked increase in interest in wall decoration, since wall surfaces are among the most conspicuous elements of the home.

Removing and applying wallpaper is a time-consuming job if it is to be done by the householder, and paperhangers to do the work may not be available. One answer to the problem of refinishing walls is the use of one of the popular cold-water paints, and a number of such paints for interior finish have been very heavily advertised in recent months.

These paints are not the same as the casein paints which became increasingly popular after their use in the Century of Progress buildings at the World's Fair in 1933. In the newer product synthetic resins are employed to improve both the washability and the ease of application. Some of the new paints contain little or

none of the casein that was the basis of the earlier washable cold-water paints.

Those who are considering using one of the new water-mixed paints should carefully study their own particular problem to be certain that paints of this type are actually suited to the particular job. It must be conceded that wall surfaces covered with water paints have a more pleasing appearance to most people than surfaces with an oil paint coating. The uniform matt surface and the absence of bright areas or reflected glare from shiny or semi-shiny zones is more restful to the eyes and attractive in other ways.

Water paints are relatively easy for the amateur painter to apply, either with a brush, or with the roller sold by the manufacturers for this purpose. There is also an absence of the characteristic painty odor, although water paints do have an odor which to some people may be as objectionable as that of oil paints. This odor usually disappears or becomes quite faint, however, in about 24 hours.

For wallpaper that is firmly adherent and for surfaces that

have been previously painted with water paints except calcimine, or for walls or ceilings of plaster or fiberboard not previously painted, these new water paints can be recommended. They may also be used successfully in attics and on dry wall surfaces of concrete or brick-work. When the paint is to be used over wallpaper, it is important to inspect the whole area closely to make sure that the wallpaper is everywhere firmly attached to the wall. Any places where the wallpaper appears not to be firmly adherent should be carefully pulled away from the wall, pasted down and allowed to dry fully before attempting to paint over it.

The average reader of advertising of these new water paints is very likely to assume that they serve all purposes for interior painting, for the claims tend to give this impression and say the products may be applied directly over wallpaper, painted walls, plywood walls, wallboard, fireplaces, brick interiors, cement, and basement walls. Actually these paints have a number of important disadvantages, none of which, of course, is mentioned in the

advertising or stressed in the labelling of the packages. One important application which has attracted many to the resin paints is that they can be applied directly over wallpaper and are asserted to cover its design or pattern completely in one coat. It is true the paints can be applied directly over wallpaper, *provided that the paper is firmly adherent everywhere*, but wallpaper thus treated becomes resistant to water, and if it is later to be removed it may very likely be necessary to use professional steaming equipment for the job. Not all colors of water paints will hide all wallpaper designs with the one coat which the manufacturers of *Kem-Tone* and *Resintone* claim will cover properly when their product is used.

Although water paints have been applied over previous coatings of standard wall paints using a linseed oil or similar vehicle, with results apparently successful at the time of painting, chipping or flaking of paint have often followed, leaving a difficult surface to deal with for any subsequent painting. Authorities on paints have long recognized that any paint will wear better if it is applied over a paint of similar chemical and physical characteristics, and the best and safest practice is to use an oil paint over a previous coating of oil paint. This is an important point, yet one that is given little consideration by both consumers and the average painter. It applies both to paints for interior use and to paints for out-of-doors use.

The new resin-and-casein paints should not be applied over calcimine, which contains glue and is softened by water or by any material mixed in

water. They are likewise not recommended for painting smooth woodwork, such as doors, trim, or window sash, which are touched by the hands frequently. Perspiration and smudges from grimy or greasy hands cannot be easily washed off, as they penetrate water paint films too deeply. For finishing of woodwork in such locations, a good quality oil paint or enamel is much better, for it can be successfully and easily washed and rewashed, and will resist encroachment of dirt into the coating. This resistance to dirt is especially characteristic of glossy oil paints, though semi-gloss and even flat oil paints stand washing much better than any water paints.

Another class of surfaces on which these paints must not be used is in basements or in rooms which are damp (such as a bathroom or kitchen), for the molds which will attack paints in such localities will not only damage and disfigure the coating, but may give off an objectionable odor.

Ease of Application

Although the resin-and-casein paints can be applied with a brush, dealers advise the use of a roller made especially for this type of paint. The rollers are about seven inches wide and consist of a pad of a coarse felt or carpet material on a sponge rubber base fastened to a wooden roller. The pad can be washed and the roll used again. While the life of the roll is short, its use has advantages for some types of work, especially if a good brush is not at hand, or obtainable at a reasonable price at this time.

The rollers are especially helpful in painting ceilings. The

paint when mixed as directed is so thin that if a brush is used over the head by a person not expert in painting with a brush, the paint will run down the painter's arms like water. With the roller, this does not occur, and it is not difficult to get an even, "level" coat. (Immediately after the painting is done with use of the roller, there is a stippled effect, but this disappears, or nearly so, as the paint dries.) One consultant, however, rates the roller as only a wartime substitute for a good brush and believes that for most persons, even comparative amateurs, brushes which are easier to use and faster than roller devices will continue to be used for good painting.

Though the roller can be used, if desired, for the greater part of the painting, some brush work will be necessary at the top region of the walls and edges of the ceiling, also around doors and windows, where a narrow "safety strip" must be left.

The principal objection to the roller is the seam in the fiber cover. After some use, the nap wears off this seam which is slightly raised and leaves a series of marks along the wall. The life of the roller, which is rather crudely and imperfectly made, is probably only sufficient to paint one average size room, for when used a second time, the nap will have been compressed, and it will not do so good a job as when new. A roller with a seamless covering of better grade would be a great improvement over the type now sold. Some of the rollers now appearing on the market are covered with carpeting and have a spiral seam, which should overcome the difficulties referred to.

It is important to remember

that although spatters of these water paints may be wiped off with water or soapsuds, this must be done before the paint has "set." Resin-and-casein paints are water-resistant when dry, and it is difficult to remove them from woodwork, brushes, rollers, containers, or other surfaces then.

Washability

The resin-and-casein paint manufacturers all claim that their products are washable. One says "just as washable as any good flat wall paint," another "readily washable," another just "washable." Both *Kem-Tone* and *Sero-Tone* recommend the use of mild soap and water.

Laboratory tests by CR showed that all three of the paints tested were inferior in respect to washability compared to an oil paint of the flat or non-glossy type. The paints were marked by a soft pencil and also with a light daub of machine oil. Thereafter eleven very limited and brief washings were carried out according to a standard routine. On the oil paint the washing removed the pencil marks and oil spot completely. With all three of the resin-and-casein paints, the pencil mark was still visible after 15 washings, although the paints themselves had worn away sufficiently with that number of washings to allow the undercoat to show

through, as did not occur with the oil paint. With *Wards Resintone*, removal of the oil spot was accomplished only when the paint was removed too. With *Kem-Tone* the spot was removed without apparent damage to the paint. With *Sero-Tone*, the spot was still plainly visible after the fifteenth washing, and the paint itself was in poor condition.

Relative Economy

There is, of course, a difference in relative costs if two coats of oil paint are necessary for a particular job. In considering costs, it must be remembered that two coats of the resin-and-casein paints, mixed and applied according to directions, will, in spite of advertising claims, often be needed, as one coat will not cover some patterns or surfaces satisfactorily. In a trial made, for example, by CR, one coat of *Kem-Tone*, mixed and used according to directions, failed to cover a red-and-white striped wallpaper satisfactorily. It also failed to cover the border satisfactorily when a sidewall and border were being painted. The material cost per square foot per coat is approximately twice as much for water paint as for good quality oil paint. However, if the job is one that could be done with one coat of water paint, the cost of the water paint would be about the same as the cost for two coats of a

good oil paint.

Resin-and-Casein Paints

B. Intermediate

Sero-Tone (Sears-Roebuck's Cat. No. 30-04013, etc.) 69c for 1 qt.; \$2.49 for 1 gal. 1 gal. claimed to cover 600 to 800 sq. ft., but in actual use found to give approximately the same coverage as *Kem-Tone*. (Nature of surface not specified, but doubtless a smooth, non-absorbent surface is meant.) Performance of *Sero-Tone* as to washability judged least satisfactory of the three paints studied. 2

Wards Washable Resintone (Montgomery Ward's Cat. No. 75-2725, etc.) 77c plus postage for 1 qt.; \$2.59 plus postage for 1 gal. 1 gal. claimed to cover 700 sq. ft. on smooth surfaces, 200 sq. ft. on rough porous surfaces. In actual use was found to give about 20% larger area coverage than *Kem-Tone* and *Sero-Tone*. Judged intermediate in washability between *Kem-Tone* and *Sero-Tone*. 2

Kem-Tone (The Sherwin-Williams Co., Cleveland, Ohio) 98c for 1 qt.; \$2.98 for 1 gal. Coverage figures were not given on the can or in the literature, but inquiry by letter discloses claim for *Kem-Tone* of a coverage ranging from 300 to 400 sq. ft. (equivalent to a material cost of 75 to 99c per 100 sq. ft.), depending upon the porosity of the surface over which it is applied and the method of application. This was found to be approximately correct in an actual use test. This paint gave the best performance of the three in washability. On present information, *Kem-Tone* would appear to be the best of the three paints studied. For use on previously unpainted walls or ceilings of plaster, fiberboard, or wallpaper (provided that the paper is firmly adherent everywhere) or for such surfaces previously decorated with water paints, *Kem-Tone* would probably merit an *A* rating. 3

Frozen Pipes Involve a Real Hazard

A HAZARD of a very unexpected and often quite disastrous sort exists when lighting a fire in the kitchen stove if the hot-water front (also known when located toward the back of the stove as a

hot-water back) is frozen, for a very serious explosion capable of wrecking the stove and the room can occur. Another precaution that should be taken

with plumbing in cold weather is not to draw water from a faucet or piping connected to a hot-water boiler if there is any danger that the hot-water pipes are frozen, for the result may be to collapse the boiler.

The New Zenith Hearing Aid

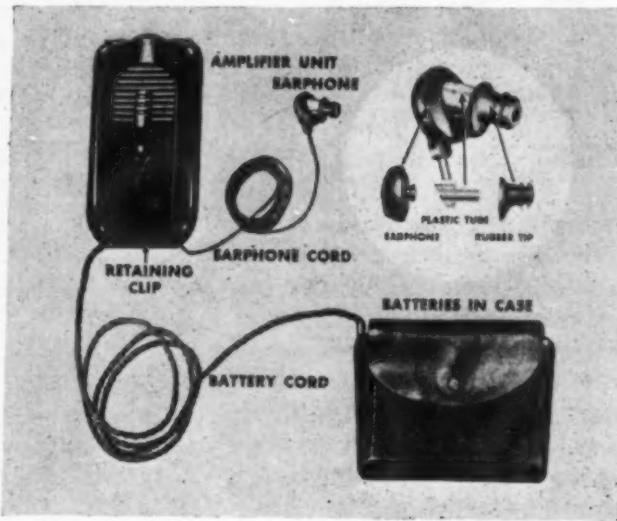
By PERCIVAL WILDE

THE APPEARANCE of the *Zenith* hearing aid is good news for many, for it means that for the first time the hard of hearing will be able to buy a well-designed and powerful instrument at a price which should not upset the family budget. The outfit consists of a two-tube microphone equipped with a n on - off switch, a volume control regulating amplification, a tone control permitting selective amplification of high, medium, low, or all pitches, an "air-conduction" receiver with four rubber-sheathed fittings in different sizes, W. P. B. standard 1½-volt "A" and 45-volt "B" batteries, and connecting cables.

The guaranty covers the instrument for one year, *Zenith* undertaking to make good at its Chicago factory any defective part (batteries and cables excepted) for a charge of \$1. For \$7.50, an instrument will be completely reconditioned at any time during five years if delivered to the factory with transportation charges paid. During such periods rental instruments will be supplied by dealers for 20 cents a day.

Instruments obtained from the New York City sales agents were tested by the writer and by collaborating consultants,

all of them persons who have had far more than average experience in the actual personal use of hearing aids. A questionnaire was answered in writing by five women and by the writer, and oral opinions were expressed by two other men. The following is a consensus of opinion:



The shortest trial given the instrument was one of "a few hours," but five of the consultants tested it for ten days or longer. The members of the latter group also wore it at the same time as their usual instruments, and made careful comparisons by switching from one to the other while listening to the radio, at theaters and churches, and during conversations.

All of the consultants agree that the *Zenith* is satisfactory for moderate amplifications and at short distances. Under severe conditions seven of them find it less satisfactory, because of extraneous noises, than a number of instruments in the \$165-and-up class, the latter preserving better clarity at all

amplifications. One consultant, the woman who tried it for "a few hours," writes, "The time was not long enough to make a fair comparison, but I believe it would be as satisfactory as my usual (high-priced) instrument."

The *Zenith* ear fittings, sheathed in soft rubber, are considered an improvement by the manufacturer but were unanimously rated unfavorably by the consultants. One of them writes, "Clarity and distance both reduced"; another, "Unsatisfactory, uncomfortable, and made my ear sore after one day's use." The writer found the fittings uncomfortable, inefficient, and prone to fall out of the ear, though he tried various sizes. Contact between the flesh of the external ear and a relatively incompressible substance such as vulcanite or Lucite is more comfortable than contact between flesh and soft-rubber wedged into it, and it is accordingly recommended that universal fittings, shown in the illustration on page 25, be supplied instead, the purchaser selecting the proper size at his dealer's. Their cost should be no greater than the *Zenith* fittings. It was agreed that molded fittings, made from casts of individual ears, were by far the best. Such fittings are retailed at from \$5 to \$15, though the same manufacturer is believed to make them for all hearing-aid distributors.

The variable tone control was well liked, though positions 1 and 2, general amplification and high-pitch amplification, were preferred even by persons whose hearing losses were greatest in

the low-pitch range.

Suggestions for improving the instrument showed remarkable agreement. The two-tube microphone, measuring 2-3/4 x 5-3/16 x 7/8 inches overall, was pronounced too large, particularly as there is on the market a three-tube microphone measuring 2-1/4 x 3-11/16 x 3/4 inches. The latter, high-priced, provides greater power with less than half the bulk (space occupied). The women generally complained that friction between the microphone and their clothing produced too much noise, and that the rheostat wheel, whose rim has needless projections, caught in their dresses. One of them commented that the batteries were "too hard to disconnect," a point to which the writer attaches far more importance than did his consultant. A cord may become entangled with external objects, and the risk increases as the cost of the instrument becomes lower and the user is likely to perform more work requiring manipulation or manual labor. An intentional "weak link," permitting a connection to part harmlessly if there is a heavy strain on the cord, is a desirable safeguard, for without it the microphone may be torn from the wearer's body and totally wrecked. There is such a weak link in the *Zenith* receiver cord, which detaches itself readily; a similar protection is needed somewhere in the battery cable.

It was agreed that numbers should be printed on the rheostat wheel, to facilitate return to previous settings.

Most of the consultants were eager to try the *Zenith* with a "bone-conduction" earpiece, since deafened persons who can use that form of receiver generally prefer it. It is stated

that the *Zenith* will soon be supplied with such equipment. In the mean time, the writer, by having other terminals soldered to an extra cord courteously supplied by Messrs. Aitchison & Co., New York agents for the device, has been able to make a variety of com-



At the left, a "universal" fitting for the left ear; immediately above it is the adjustable tube which is supplied with the fitting. At the center, a "universal" fitting for the right ear; the tube is in place. To the right, and placed in a similar position so that its structure may be better understood, is a transparent lucite molded fitting for the right ear.

parisons. It is his opinion that the *Zenith* "air-conductor" is definitely noisier and more "tinny-sounding" than another in a higher price-class, and that the difference becomes accentuated as the amplification increases; he found, also, that the *Zenith* microphone worked admirably with "bone-conductors" designed for other similar aids, though it lacked the extreme power of the more costly appliances. One aged person, however, not listed among the consultants because her hearing loss is moderate and her experience none too great, liked the combination of *Zenith* microphone and another "air-conduction" receiver so much better than any other she had ever tried that she promptly purchased such an outfit.

It is not for the writer, who is not an engineer, to offer an explanation of the extraneous

noises observed by him and by the great majority of his consultants. One of the latter suggests that there may be echo within the microphone itself, whose dimensioning may be incorrect. The problem is one that should be dealt with by the *Zenith* technical staff.

Zenith literature states "A new circuit. . .insures unusually long battery life." The claim seems to be substantiated. The writer used a *Zenith* for several hours daily for more than two weeks without changing either of the batteries. While the test conditions were severer than those to be expected in average use, the batteries were still in excellent condition at the end of the period.

Tentative findings on this hearing aid were announced in the February 1944 BULLETIN. The present consensus of opinion may now be expressed in the words of one of the consultants:

"The aid is a valuable contribution to the hearing aid industry. It does serve the needs of a vast number of people who otherwise could not afford aids. It is an excellent aid for persons with moderate hearing losses and for first users of hearing aids. In spite of the many reasons given by manufacturers of other hearing aids about the necessity of keeping the cost so high, I still believe that this is not so, and that *Zenith* has proven that a good aid can be made at a lower cost."

Editor's Note.—Since this article was written, the Council on Physical Therapy of the American Medical Association, following a study and tests of the instrument, has voted to accept the *Zenith* hearing aid for inclusion in its list of approved devices.

Off the Editor's Chest

[Continued from page 2]

well people enjoy their rediscovery of home duties and home comforts and how soon reconversion of manufacturing facilities from implements of war to consumers' goods takes place.

Home canning is a household art that has experienced a sensational revival. Some government officials think, as the result of a spot check of available supplies, that so far as any actual overall shortages are concerned there is no need for general rationing of canned foods. Furthermore many women have been quite decided in saying that they greatly prefer their own home-canned vegetables, put up while still fresh from the garden, to those that have been canned commercially. Consumers who have tasted tree-ripened home-canned peaches have found them infinitely superior in flavor to any top-grade matched-halves brand that in former years could be found in abundance on grocers' shelves, at a reasonable price in cents and no price at all in "points."

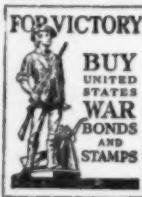
Revival of home crafts will certainly bring about drastic changes in consumer buying habits that will be a potent factor in the planning and thinking of businessmen in post-war years. The extremely high tax rates obtaining now and after the War also add a great financial burden to the problems of people at any income level, and, too, will tend to encourage more and more use of the facilities and skills available in the home, and less buying of supplies and services hitherto purchased as a matter of course. More men will develop money-saving hobbies, and more women will take pride

in home sewing, home canning, home baking, and the preparation of economical but bountiful meals.

Consumers by millions are learning to make what they have do, and learning to do things for themselves, and upon the extent to which they are satisfied with this state of things, will depend the amount of the pressure and demand that will be created for production of needed commodities.

The tremendous capacity that has been developed in this country for the production of the goods of warfare will not be able to function to anything like its possible capacity in the service of the people through production of consumers' goods, unless there is a matching demand for the output. Those who have found it an expedient policy to block and delay the reconversion of war plants that have been closed or partially shut down because of cancellation or completion of contracts will do well to ponder over the recent government survey indicating that no great desire existed among consumers for certain large items they were expected to want, in droves.

Quite possibly a sizable fraction of the public has learned to do without and like it; if so, the result bodes not at all well for either "big business" or "big government." The frugal consumer, war-conditioned to saving and making things do, will tend to buy cautiously, and mostly at home, and will become pretty watchful to see that tax moneys do not go to waste on grandiose projects of boondoggling or "public works" that no one (except politicians with patronage in mind) particularly wants or needs, or will use.



*Buy War Bonds
and Stamps*

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of
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Consumers' Research Bulletin

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† indicates that brand listings are included.

* indicates articles that appear each month in the Bulletin.

Ratings of Motion Pictures

This section aims to give critical consumers a digest of opinion from a number of reviews, ranging from the motion picture trade press to Parents' Magazine, which rates motion pictures not only on their quality as entertainment but on their suitability in various aspects for children.

It should be emphasized that the motion picture ratings which follow do not represent the judgment of a single person but are based on an analysis of the reviews appearing in some 20 different periodicals. (See January 1944 issue for sources of the reviews.)

The figures preceding the title of the picture indicate the number of critics who have been judged to rate the film A (recommended), B (intermediate), and C (not recommended).

Audience suitability is indicated by "A" for adults, "Y" for young people (14-18), and "C" for children, at the end of each line.

Descriptive abbreviations are as follows:

ad—adventure
biog—biography
car—cartoon
com—comedy
cri—crime and capture of criminals
doc—documentary
dr—drama
fan—fantasy
hist—founded on historical incident
mel—melodrama

mus—musical
mys—mystery
nos—dramatization of a novel
rom—romance
soc—social-problem drama
t—technicolor
trav—travogue
war—dealing with the lives of people in wartime
wes—western

A	B	C	
—	2	1	Adventure in Blackmail.....com A
—	1	6	Adventure in Iraq.....war-mel A
—	4	6	Adventures of a Rookie.....war-com AYC
—	—	—	Adventures of Tartu (See Tartu)
—	7	—	All Baba and the 40 Thieves.....mel-t AYC
—	1	8	Always a Bridesmaid.....mus-com AYC
—	8	4	Appointment in Berlin.....war-mel A
—	6	2	Around the World.....war-mus-com AYC
—	1	2	Avenging Rider, The.....wes AYC
—	3	3	Bar 20.....wes AYC
—	2	1	Beautiful But Broke.....mus-com AYC
—	13	6	Behind the Rising Sun.....war-dr A
—	2	3	Beyond the Last Frontier.....wes AYC
—	3	—	Billy the Kid in Cattle Stampede.....wes AYC
—	4	1	Billy the Kid in the Renegade.....wes AYC
—	6	—	Black Hills Express.....wes AYC
—	2	4	Black Market Rustlers.....mus-wes AYC
—	5	1	Blazing Guns.....wes AYC
—	4	9	Bomber's Moon.....war-mel AYC
—	5	—	Border Buckaroos.....mus-wes AYC
—	4	—	Bordertown Gun Fighters.....wes AYC
—	2	1	Bridge of San Luis Re.....dr AYC
—	2	1	Broadway Rhythm.....mus-com-t AYC
—	1	2	Bullets and Saddles.....wes AYC
—	8	1	Calling Dr. Death.....mys-mel A
—	2	4	Campus Rhythm.....mus-com AYC
—	2	4	Canyon City.....wes AYC
—	6	—	Career Girl.....mus-com A
—	2	4	Casanova in Burlesque.....mus-com A
—	6	3	Chance of a Lifetime.....cri-mel AYC
—	2	4	Charlie Chan in the Secret Service.....cri-mys AYC
1	1	1	City That Stopped Hitler, The.....war-doc A
5	13	1	Claudia.....com A
3	2	—	Coastal Command.....war-dr AYC
3	12	1	Corvette K-225.....war-mel AYC
—	2	6	Courageous Mr. Penn.....hist-dr AYC

A	B	C	
—	3	3	Cowboy in the Clouds.....war-mel AYC
—	10	5	Crazy House.....mus-com AYC
—	3	2	Crime Doctor's Strangest Case.....cri-mel A
—	10	6	Cross of Lorraine, The.....war-mel A
3	5	7	Cry Havoc.....war-dr A
—	7	5	Dancing Masters, The.....com AYC
—	3	3	Danger, Women at Work.....com A
—	9	1	Dangerous Blondes.....cri-com A
—	1	3	Death Rides the Plains.....wes AYC
1	1	2	Death Valley Manhunt.....wes AYC
—	1	3	Death Valley Rangers.....wes AYC
—	2	5	Deerslayer.....adv AYC
1	7	3	Desert Song, The.....war-mus-mel-t A
9	4	—	Destination, Tokyo.....war-dr AYC
1	10	3	Destroyer.....war-mel AYC
—	2	1	Devil Riders.....wes AYC
—	5	5	Doughboys in Ireland.....mus-com AYC
—	1	7	Drums of Fu Manchu.....mel AYC
—	2	1	Escape to Danger.....war-mel A
—	6	4	Falcon and the Co-eds, The.....cri-mys AYC
—	4	8	Falcon in Danger, The.....cri-mel AYC
1	13	3	Fallen Sparrow, The.....war-mys A
—	6	1	False Colors.....wes AYC
1	3	1	Fighting Seabees, The.....war-mel AYC
—	3	2	Fighting Valley.....mus-wes AYC
—	1	7	Find the Blackmailer.....mys-mel A
—	5	1	Fire in the Straw.....dr A
1	5	6	Fired Wife.....com A
—	9	7	First Comes Courage.....war-dr A
3	10	5	Flesh and Fantasy.....dr A
—	6	6	Follies Girl.....mus-com A
1	3	3	Footlight Glamour.....com A
—	9	2	Frontier Badmen.....wes AYC
—	4	2	Fugitive from Sonora.....wes AYC
—	3	7	Gals, Incorporated.....mus-com A
10	5	—	Gang's All Here, The.....mus-com-t A
—	6	4	Gangway for Tomorrow.....war-dr-propaganda A
—	3	7	Ghost Ship, The.....mel A
1	6	6	Gildersleeve on Broadway.....com A
—	13	—	Girl Crazy.....mus-com AYC
—	5	2	Girl from Monterey, The.....mus-com AY
—	2	7	Good Fellows, The.....com AYC
—	6	3	Good Luck, Mr. Yates.....war-dr AYC
—	6	9	Government Girl.....war-com A
—	4	4	Great Mr. Handel, The.....mus-biog-t AYC
8	7	2	Guadalcanal Diary.....war-dr AY
3	8	—	Gung Ho.....war-dr A
1	7	3	Guy Named Joe, A.....war-dr A
—	3	3	Hail to the Rangers.....mus-wes AYC
2	3	—	Hands Across the Border.....mus-wes AYC
4	10	3	Happy Land.....war-dr AYC
—	3	4	Harvest Melody.....mus-com AYC
—	1	7	Headin' for God's Country.....war-mel AYC
—	4	11	Heat's On, The.....mus-com A
4	14	—	Heaven Can Wait.....dr-t A
—	3	2	Heavenly Body, The.....com A
—	1	4	Henry Aldrich, Boy Scout.....com AYC
1	5	5	Henry Aldrich Haunts a House.....com AYC
—	7	1	Here Comes Elmer.....mus-com A
—	3	4	Here Comes Kelly.....com AY
3	10	4	Hers to Hold.....war-mus-dr AYC
—	11	7	Hi Diddle Diddle.....war-mus-com A
—	3	4	Hi 'Ya Sailor.....mus-com A
—	13	2	Higher and Higher.....mus-com A
1	13	2	His Butler's Sister.....mus-dr AYC
3	14	—	Holy Matrimony.....nov-com A
—	4	5	Honeymoon Lodge.....mus-com A
—	5	1	Hoosier Holiday.....war-mus-com AYC
—	2	7	Hostages.....war-nov A
1	7	7	I Dood It.....mus-com A
—	13	3	In Old Oklahoma.....mus-dr A
—	11	4	In Our Time.....war-dr AYC

A	B	C			A	B	C		
1	11	3	Iron Major, The	biog AYC	1	6	3	Salute to the Marines	war-mel-t AYC
—	2	6	Is Everybody Happy?	war-mus-dr AYC	—	1	7	Scream in the Dark, A	mys A
—	1	3	Isle of Forgotten Sins	adv A	—	—	12	Seventh Victim, The	mys-mel A
—	4	3	It Happened in Gibraltar	war-mel A	8	8	—	Shadow of a Doubt	cri-dr A
—	6	3	Jack London	biog A	1	6	4	Sherlock Holmes Faces Death	cri-mel AYC
—	4	1	Jane Eyre	nov A	2	2	2	She's for Me	mus-com A
1	5	1	Jeannie	rom AYC	—	3	3	Shrine of Victory, The	war-doc AYC
—	4	3	Jive Junction	mus-dr AYC	—	4	3	Silver City Raiders	wes AYC
2	12	3	Johnny Come Lately	dr AY	—	2	4	Silver Spurs	mus-wes AYC
—	—	—	Kansan, The	wes AYC	—	3	—	Sing a Jingle	mus-com AYC
—	—	5	Klondike Kate	mel A	11	7	—	Six-Gun Gospel	wes AYC
—	15	2	Lady Takes a Chance, A	com A	—	2	6	Sky's the Limit, The	war-mus-com AYC
—	2	8	Larceny With Music	mus-com A	—	2	4	Sleepy Lagoon	mus-dr AYC
8	8	2	Lassie Come Home	nov AYC	—	1	8	Smart Guy	cri-dr A
—	3	3	Law Rides Again, The	wes AYC	10	1	—	So This Is Washington	war-com AYC
—	11	8	Let's Face It	war-mus-com A	—	6	4	Someone to Remember	com A
2	1	—	Life and Death of Col. Blimp	war-dr A	6	4	—	Son of Dracula	mel A
3	7	1	Lifeboat	war-dr A	1	5	1	Song of Bernadette, The	dr AYC
—	10	3	Lodger, The	cri-mel A	—	5	5	Song of Russia	war-dr AYC
—	3	2	Lone Star Trail, The	wes AYC	—	8	2	So's Your Uncle	com AYC
3	7	—	Lost Angel	com AYC	—	8	2	Spider Woman	cri-mel A
—	3	8	Mad Ghoul, The	cri-mel A	—	8	—	Spotlight Scandals	mus-com A
11	7	—	Madame Curie	biog AYC	—	3	6	Standing Room Only	war-com A
—	9	6	Man from Down Under, The	war-mel A	3	6	—	Strange Death of Adolph Hitler, The	war-mel A
1	8	1	Man from Music Mountain	mus-wes AYC	—	3	1	Stranger from Pecos, The	wes AYC
—	2	3	Man from Rio Grande, The	wes AYC	—	3	4	Submarine Base	war-mel A
—	3	—	Man from Thunder River	wes AYC	1	3	—	Sullivans, The	war-dr AYC
—	5	3	Melody Parade	mus-com AYC	—	3	5	Sultan's Daughter, The	mus-com A
—	4	—	Mexicali Rose (re-issued)	mus-wes AYC	2	13	2	Suspected Person	mys A
—	2	7	Mexican Spitfire's Blessed Event	com A	—	3	7	Sweet Rosie O'Grady	mus-com-l A
—	3	5	Minesweeper	war-mel AYC	—	3	4	Swing Fever	mus-com A
2	6	6	Miracle of Morgan's Creek, The	com A	—	2	8	Swing Out the Blues	mus-com AYC
—	5	3	Moonlight in Vermont	mus-com AYC	—	2	—	Swingtime Johnny	mus-com A
—	2	5	Mr. Muggs Steps Out	cri-com AYC	11	6	6	Tartu	war-mel A
—	1	9	Murder on the Waterfront	war-mel A	4	6	—	Tarzan's Desert Mystery	war-adv AYC
—	11	3	My Kingdom for a Cook	com A	1	3	2	Tender Comrade	war-dr A
—	6	3	Mystery Broadcast	mys A	—	3	2	Texas Kid, The	wes AYC
—	3	6	Mystery of the 13th Guest, The	mys-mel A	2	7	6	Texas Masquerade	wes AYC
—	3	5	Nearly Eighteen	mus-com A	—	9	1	Thank Your Lucky Stars	mus-com AYC
—	5	2	Never a Dull Moment	mus-com AYC	—	—	—	There's Something About a Soldier	war-com AYC
—	4	5	Night Plane from Chungking	war-mel AY	12	8	—	Thirteenth Guest (See Mystery of)	
2	13	2	No Time for Love	com A	—	2	1	This Is the Army	war-mel-t AYC
—	4	4	Nobody's Darling	mus-dr AYC	6	12	—	This Is the Life	rom AYC
—	2	2	None Shall Escape	war-mel A	—	3	4	Thousands Cheer	war-mus-t AYC
4	10	4	North Star, The	war-dr-propaganda A	—	1	6	Three Russian Girls	war-dr AYC
—	8	9	Northern Pursuit	war-mel AYC	—	2	3	Tiger Fangs	war-mel AYC
—	2	6	O, My Darling Clementine	mus-com A	1	10	3	Timber Queen	mel AYC
1	11	5	Old Acquaintance	dr A	—	4	5	Top Man	war-mus-com AYC
—	1	2	Outlaws of Stampede Pass	wes AYC	—	4	5	Tornado	mel A
—	4	2	Overland Mail Robbery	wes AYC	—	12	4	True to Life	mus-dr AYC
—	7	3	Paris After Dark	war-mel A	—	1	2	Uncensored	war-mel A
—	2	1	Passport to Adventure	war-com A	—	1	5	Underdog, The	mel AYC
—	5	3	Passport to Suez	war-mys AYC	—	6	1	Uninvited, The	mys-mel A
—	1	9	Petticoat Larceny	cri-mel A	—	1	8	Unknown Guest, The	mel A
1	2	—	Phantom Lady	mys-mel A	3	8	2	Victory Through Air Power	car-propaganda-t AYC
3	11	4	Phantom of the Opera	mus-dr-t A	—	3	2	Wagon Tracks West	wes AYC
—	4	6	Pistol Packin' Mama	mus-wes A	6	11	—	Watch on the Rhine	war-dr A
—	2	5	Prairie Chickens	com AYC	—	1	2	Weekend Pass	war-mus-com AYC
—	3	—	Pride of the Plains	wes AYC	—	2	4	West of Texas	mus-wes AYC
1	14	—	Princess O'Rourke	rom AYC	—	9	8	West Side Kid, The	cri-mel A
—	2	2	Racket Man, The	cri-mel AYC	—	2	5	We've Never Been Licked	war-mel AYC
—	2	1	Raiders of the Border	wes AYC	—	13	2	What a Man!	com A
—	—	3	Rationing	com AYC	—	6	6	What a Woman!	com A
—	2	2	Return of the Rangers	mus-wes AYC	—	6	7	What's Buzzin', Cousin?	mus-com AYC
—	4	2	Return of the Vampire	mus-mel A	—	3	—	Where Are Your Children?	mel A
—	7	7	Revenge of the Zombies	war-mel A	—	4	3	Whispering Footsteps	mys-mel A
—	3	3	Riders of the Deadline	wes AYC	—	6	8	Whistling in Brooklyn	cri-com AYC
—	2	4	Riders of the Rio Grande	wes AYC	—	1	8	Wintertime	mus-com AYC
—	11	7	Riding High	mus-com-l A	—	5	1	Woman of the Town, The	mus-wes A
—	4	2	Robin Hood of the Range	mus-wes AYC	2	1	—	Women in Bondage	war-dr A
—	4	3	Rookies in Burma	war-com AYC	—	7	2	World of Plenty	propaganda A
5	13	—	Sahara	war-dr AYC	—	2	1	Young Ideas	com A
—	1	5	Saint Meets the Tiger, The	cri-mel AYC	—	4	4	Young Man's Fancy, A	com A
—	—	—	—	—	—	4	4	You're a Lucky Fellow, Mr. Smith	mus-com A

The Consumers' Observation Post

[Continued from page 4]

\$316.50 and keep the washing machine as well. This tricky form of legal racketeering is being worked on other items; it is reported to be especially prevalent in and around Los Angeles.

* * *

THE UNDULY ROSY PICTURE that is being painted of post-war developments in the field of consumers' goods is being objected to in no uncertain terms in many business circles. Some wisely comment that the constant talk about fantastically efficient and convenient models and designs of all sorts of appliances will result in so much confusion in consumers' minds that they will hesitate to buy the normal workaday products that are bound to be offered for a long time after the War's close. There will be an enormous demand, for example, for radio sets, but many prospective buyers who have fallen for the publicity men's stories about the tremendous progress in "radiotronics" being made during the War are likely to sit tight and wait until the marvelous new developments are unfolded before their wondering eyes. Actually very little in the way of radical novelty will be available on any of the appliances which are most important and in which the consumer is chiefly interested. The wise businessman will do what he can with his advertising and publicity men to put the damper on this talk about the wonderful push-button world of the immediate post-war period.

* * *

SALAD DRESSING MADE WITH MINERAL OIL has long enjoyed a certain amount of use by ladies on ill-chosen reducing diets. Now it appears that certain restaurants are serving it on salads, presumably without notifying their customers. Mineral oil is unrationed and cheaper in price than other oils customarily used in mayonnaise which the product made with mineral oil simulates. The Journal of the American Medical Association warns that the ingestion of mineral oil may seriously interfere with the body's utilization of the pro-vitamin A (carotene, which the body can convert to vitamin A), vitamin A itself, the minerals phosphorus and calcium, and vitamin K. Possibly the only safe solution for the consumer who must eat out in restaurants of unknown culinary standards is to avoid salads unless he can be positively assured that no mineral oil whatever is being used to make the dressing on his lettuce.



WHETHER there are a lot of ships on the ocean or just a fishing smack or two - a lighthouse is mighty convenient to indicate the proximity of dangerous rocks or just to keep the skipper from getting his craft stuck in a mudbank.

Consumers' Research Bulletin, too, throws light on the pitfalls of purchasing, shows the consumer what to buy and use for health and economy, reveals the good products that are still available.

Use CR as your guide in buying. Tell friends about it.

(convenient order blanks over)

THE COAL MEN are trying to convince housewives that there really isn't so much work connected with running a coal furnace after all. An outfit called "Furnaceman, Inc." has opened offices in Lansdowne, Pa., a suburb of Philadelphia, and Albany, N. Y., for users of anthracite coal. Complete care of fire and removal of ashes costs the user of eight tons of anthracite a year \$2.50 a week. For those using 16 to 25 tons annually the charge is \$3.75 a week. If the plan catches on, the service may be extended to some 500 other centers.

* * *

NEW PRODUCTS: Air-Wick, a new deodorant for killing kitchen odors, sells for 69c the 6-oz. bottle, 89c for 8 oz. The product comes in a bottle which is uncapped for use, and a wick saturated with liquid is pulled out an inch or two. Evaporation of fumes from this wick acts to dispel unpleasant odors. Actual trial indicated that the product was fairly effective in acting on ordinary kitchen odors and was of some value in ridding a room of the odor of fresh paint. The vapors may not be entirely harmless, especially if used regularly or for long periods, since the active ingredient is formaldehyde, a substance well known to be irritating to the respiratory passages and to the eyes. Another ingredient is chlorophyl which gives the liquid a pleasant, "clean" smell and masks the pungent odor of formaldehyde. Among the maker's recommendations for the use of the product is the deodorizing of clothes closets, but there is some doubt as to the wisdom of following this advice, since there is a possibility that some dyes used in clothing may be adversely affected by the vapors.

Cellophane for Automobile Windows for motorists who wish to prevent steaming and frosting of their car windows can be obtained in handy kits ready for use from Visi-Clear Products, 1244 North Dearborn Street, Chicago. Each kit contains 7 sheets of cellophane, approximately 8 x 16 inches the sheet, adhesive, and instructions for application. The price is 60 cents postpaid. Similar kits are available from Sears, Roebuck & Co. and Montgomery Ward & Co. and auto accessory stores.

Orange squeezers made of plastic, somewhat elaborately described as a 2-in-1 Juice Extractor and Egg Separator, are found in some of the variety chain stores at 15 cents each. They are light, and convenient to use since they fit over the top of a stout glass. The device strains out the seeds effectively but those who prefer the pulp removed from their juice will need to put it through another strainer as the openings in the plastic device are large. This particular squeezer would be fairly well suited to the needs of a family of two, but would not be effective for producing orange juice in quantity. The juicer should be washed in cool rather than hot water. A real disadvantage is the small liquid and pulp capacity of the juice-catching rim of the device, which holds so little juice that it must be emptied or cleaned when only one-half of a good-sized orange has been "de-juiced." In this and some other respects, the old-style large glass reamer or juicer is much to be preferred. As an egg separator the new device is superfluous. The old-fashioned method of separating the white from the yolk with the two halves of the shell is considered the most efficient method.

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PHONOGRAPH RECORDS

By Walter F. Grueninger

Please Note: Prices quoted do not include taxes. In the ratings AA indicates highly recommended; A, recommended; B, intermediate; C, not recommended.

ORCHESTRA

Milhaud: *Suite Provencale*. St. Louis Symphony Orchestra under Golschmann. 4 sides, Victor Set 951. \$2.50. A delightful suite of eight brief movements based on eighteenth century folk airs employing intriguing modern harmonies. Excellent recording, performance, surfaces.

Interpretation AA
Fidelity of Recording AA

Thomas: *Mignon*—Overture. NBC Symphony Orchestra under Toscanini. 2 sides, Victor 11-8545. \$1. Featured are the familiar aria, *Connais-tu le pays* and the polonaise, *Je suis Titania*. The performance is stunning, the recording better than most Toscanini releases. Side one swishes noticeably.

Interpretation AA
Fidelity of Recording A

CHAMBER

Beethoven: *Quartet No. 7* (Op. 59 No. 1) (Rasoumovsky No. 1). 11 sides & **Haydn:** *Quartet No. 83*—*Menuette* only. 1 side. Busch Quartet. Columbia Set 543. \$6.50. One of the masterpieces of chamber music easily accessible to listeners already familiar with the medium. The recording is inclined to be coarse, but not unduly so. Considering all factors, it ranks above its competitors—Columbia Set 256 (Roth Quartet) and Victor Set 804 (Coolidge Quartet).

Interpretation A
Fidelity of Recording AA

Beethoven: *Trio No. 7* (Op. 97) "Archduke". Rubenstein (piano), Heifetz (violin), Feuermann (cello). 10 sides, Victor Set 949. \$5.50. One of the most widely known and admired trios. Deserving of praise are the performance and the recording of soft passages. As soon as the volume of the music increases to *sforzando* or *forte*, however, buzzes and rattles occur. The same defects appeared on a second set tested. Under the circumstances, I prefer this selection played by Cortot, Thibaud, Casals in Victor Set 92, despite thin recording. Based on this experience, the C rating is given for fidelity. Should a set be found without these defects, a much higher rating would be justified.

Interpretation AA
Fidelity of Recording C

Schubert: *Sonatina No. 1* (3 sides) & *Piano Sonata Op. 53—Rondo* only (arr. by Friedberg) (1 side). Szigeti (violin), Fodles (piano). Columbia Set X238. \$2.50. One of Schubert's less profound but pleasant works which I recommend to laymen who enjoy violin music. Szigeti's performance deserves preservation. The recording of the piano, particularly in upper registers, sounds wooden, but there's no complaint on the recording of the violin. On side three, at a point approximately $2\frac{1}{4}$ inches from the center hole perimeter, I hear a left hand pizzicato E not in the score. Overall, better than Renardy's recording on Columbia X116. With Szigeti audiences, the odd side is a favorite encore. Surfaces quiet.

Interpretation AA
Fidelity of Recording A

VOCAL

Gluck: *Alceste*-*Divinités du Styx* & **Meyerbeer:** *Le Prophète*—*Ah! mon fils*. Stevens (mezzo soprano). 2 sides, Columbia 71486. \$1. *Divinités* is an invocation of the underworld deities. There's commendable feeling in young Risé Stevens' performance yet less fervor than in Traubel's Victor 17268. Traubel's orchestra is fuller and the recording in better balance, too. *Ah! mon fils* is a dramatic, intense aria of a mother's gratitude to her son which Miss Stevens sings well, but on Victor 6803 Sigrid Onegin sings with more authority. Miss

Stevens is a mezzo soprano. The first aria was composed for soprano, the second for contralto. There's a difference. Surfaces are quiet.

Interpretation A
Fidelity of Recording A

LIGHT, POPULAR, AND MISCELLANEOUS

Basie: *For the Good of Your Country* & **Adamson-Gordon-Youmans:** *Time on My Hands*. Count Basie and His Orchestra. 2 sides, Columbia 36685. 50c. Much activity in these foxtrots but nothing distinctive.

Interpretation B
Fidelity of Recording A

Berlin: *The President's Birthday Ball*. Jimmy Dorsey and His Orchestra & *Angels of Mercy*. Glen Gray and the Casa Loma Orchestra. 2 sides, Decca 4170. 35c. *The Ball* is a snappy foxtrot with a vocal by Bob Eberly. *Angels of Mercy*, dedicated to the American Red Cross, is a foxtrot with a vocal by Kenn Sargent. Both performances are first rate. Quiet surfaces.

Interpretation AA
Fidelity of Recording AA

Bing Crosby Vol. 1 (baritone). 8 sides, Brunswick Set B1012. \$3.50. The songs were recorded by Bing in 1931 when he was already an outstanding figure. For more than ten years he alone has withstood all competitors to maintain supremacy in a field noted for its turnover. Compared to these records, current records show variations in style, of course, and a noticeable darkening of timbre. Included in this album recommended principally to collectors of Crosbiana are *Out of Nowhere*, *Just One More Chance*, *Good Night Sweetheart*, *I'm Through with Love*, and others.

Interpretation AA
Fidelity of Recording B

Chauncy Gray (piano). 8 sides, Hit Set H102. \$2.50. Intimate, cafe style performance of *The Man I Love*, *Why Do I Love You*, *Summertime*, *Lover Come Back*, and four other similar numbers. Audible surfaces.

Interpretation A
Fidelity of Recording A

Dinner Music. Herzer Concert Orchestra. 8 sides, Hit Set H110. \$2.50. *Salut D'Amour*, Handel's *Largo*, *Mattinata*, *Reverie* by Schumann are included in this miscellany played by a small orchestra.

Interpretation AA
Fidelity of Recording AA

Ethel Waters Souvenir Album (soprano). 10 sides, Decca Set 348. \$2.25. *Miss Otis Regrets*, *Moonglow*, *You're a Sweetheart*, *Dinah* are included.

Interpretation AA
Fidelity of Recording A

Judy Garland 2nd Souvenir Album (soprano). 8 sides, Decca Set 349. \$2.50. *Old Black Magic*, *I Never Knew For Me and My Girl*, *Fascinating Rhythm*, and others.

Interpretation B
Fidelity of Recording AA

Musette on Parade. Six Orchestras. 10 sides, Continental Set 3. \$3 (Continental Record Company, 265 W. 54 Street, New York City). *Bartender Serenade*, *Champagne Polka*, *Let's Drink*, *Window Washer Man*, and others played by small orchestras recorded in Europe. Surfaces satisfactory. This company has released several hundred marches, polkas, mazurkas, etc., under Continental, White Eagle, and Czardas labels, most of which were recorded in Europe.

Interpretation AA
Fidelity of Recording A

Wilson: *I Walk Alone* & *No Letter Today*. Dick Robertson (tenor) & His Orchestra. 2 sides, Decca 4426. 35c. Popular vocal foxtrots with a suggestion of the hillbilly. Dance orchestra accompaniment. Second rate singing, though the Decca press release calls it "super vocal." Quiet surfaces.

Interpretation B
Fidelity of Recording AA

BONDS AND STAMPS

BUY UNITED STATES WAR SAVINGS



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